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Ontario

ROYAL COMMISSION OF INQUIRY INTO CERTAIN
DEATHS AT THE HOSPITAL FOR SICK CHILDREN AND
RELATED MATTERS.

Hearing held
8th floor
180 Dundas Street West
Toronto, Ontario

The Honourable Mr. Justice S.G.M. Grange

P.S.A. Lamek, Q.C.

E.A. Cronk

Thomas Millar

Commissioner

X Counsel

Associate Counsel

X Administrator

Transcript of evidence
for

September 13, 1983

VOLUME 32

OFFICIAL COURT REPORTERS

Angus, Stonehouse & Co. Ltd.,
14 Carlton Street, 7th Floor,
Toronto, Ontario M5B 1J2

595-1065

Webb

In Ch. P.M.C.

X Roland

X Hunt

No re-exam

Foster

In Ch. P.M.C.

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Cham

Shenikoff

Hunt.



ROYAL COMMISSION OF INQUIRY INTO CERTAIN
DEATHS AT THE HOSPITAL FOR SICK CHILDREN
AND RELATED MATTERS.

Hearing held on the 8th Floor,
180 Dundas Street West, Toronto,
Ontario, on Tuesday, the 13th
day of September, 1983.

- - - - -

THE HONOURABLE MR. JUSTICE S.G.M. GRANGE - Commissioner
THOMAS MILLAR - Administrator
MURRAY R. ELLIOT - Registrar

- - - - -

APPEARANCES:

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D. HUNT	Counsel for the Attorney- General and Solicitor General of Ontario (Crown Attorneys and Coroner's Office)
K.J. ROLAND)	Counsel for The Hospital
R. BATTY)	for Sick Children
M. THOMSON)	
D. YOUNG	Counsel for The Metropolitan Toronto Police
M.N. ORTVED)	Counsel for numerous Doctors
K. CHOWN)	at The Hospital for Sick Children
E. McINTYRE)	Counsel for the Registered
F. KITELY)	Nurses' Association of Ontario and 35 Registered Nurses at The Hospital for Sick Children
H. SOLOMON	Counsel for the Ontario Association for Registered Nursing Assistants



APPEARANCES: (Continued)

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D. BROWN)	Nurse
G.R. STRATHY)	Counsel for Phyllis Trayner -
E. FORSTER)	Nurse
N. GOODMAN	Counsel for Mrs. M. Christie -
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J.A. OLAH	Counsel for Janet Brownless -
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	Mr. & Mrs. Gionas, Mr. & Mrs.
	Inwood, Mr. & Mrs. Turner, Mr.
	& Mrs. Lutes and Mr. & Mrs.
	Murphy (parents of deceased
	children)
F.J. SHANAHAN	Counsel for Mr. & Mrs. Dominic
	Lombardo (parents of deceased
	child Stephanie Lombardo); and
	Heather Dawson (mother of
	deceased child Amber Dawson)
W.W. TOBIAS	Counsel for Mr. & Mrs. Hines,
	(parents of deceased child
	Jordan Hines)
J. SHINEHOFT	Acting for Lorie Pacsai and
	Kevin Garnet (Parents of
	deceased child, Kevin Pacsai).



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--- Upon commencing at 10:00 a.m.

THE COMMISSIONER: Yes, Mr. Lamek.

MR. LAMEK: Thank you, Mr. Commissioner.

May I call, please, Dr. Weber.

DR. JAMES LOUIS WEBER, Sworn

DIRECT EXAMINATION BY MR. LAMEK:

Q. Dr. Weber, I understand that you are member of the medical staff of the Hospital for Sick Children?

A. That is correct, sir.

Q. Can you tell me please in what service you hold an appointment on that staff?

A. The Paediatric Service.

Q. Do you have an area of specialization.

A. Division of Gastroenterology, Sub Division of Hepatology.

Q. And hepatology as I understand it involves the study of liver and liver diseases?

A. That is correct, sir.

Q. One might ask what you are doing in a gathering of cardiologists like this but of course we know the reason. You had occasion as I understand it on June the 30th, 1980 to see a patient on the cardiology ward, one Laura Woodcock?



A.2

1

2

A. That is correct.

3

Q. And indeed you saw her shortly

4

before she died as I understand it?

5

A. That is correct.

6

Q. Immediately to your left, Doctor,

7

on the little shelf there, there is a copy of the

8

Hospital record of Laura Woodcock and, as I understand

9

it, you made but one entry in that record, a

10

consultation note. It is found at page 54 of the

11

record.

A. Thank you.

12

Q. And I think we have been able

13

to decipher the whole of the note, Dr. Weber. Perhaps

14

you could help us, it is dated 30.6.80 and reads,

15

I think:

"This child was seen at time of
cardiac consult."

16

17

A. "Arrest".

18

Q. Is that arrest, thank you.

19

A. I think.

20

Q. "There is an (something) liver".

21

A. "Impressive liver".

22

Q. Does that refer to its size?

23

A. Yes.

24

Q. And then perhaps you had better

25



A.3

1
2 help us with the rest of the first paragraph.

3 A. Well, it is:

4 "This is an impressive liver -
5 crossing the mid line and quite firm -
6 can't feel spleen. There are no other
7 obvious hepatic findings."

8 And then:

9 "Just two weeks old - trouble at
10 birth (resuscitation) early icterus
11 noted. Failed to thrive, etc. - little
12 history available unfortunately."

13 Q. Yes.

14 A. At that point, because in fact
15 the baby I guess was dead, I went through what I
16 considered to be the possible differential diagnosis
17 and I would stress to you, sir, with direct regard
18 to the liver.

19 Q. Yes.

20 A. The delta symbol stands for
21 diagnosis in my shorthand. The first was:

22 "Not likely sepsis - on treatment,
23 cultures negative so far."

24 The second possibility was:

25 "Quite likely 'metabolic' except
hard to think of anything this
dramatic - "



A.4

1

2

3

4

and then a note that there was a half per cent of sugar in the urine which might or might not have had relevance.

5

Q. Yes.

6

A. The third possibility was that it:

7

"Could be maternal infection - but would have expected a more dramatic illness earlier i.e. purpura etc. etc."

9

10

And the fourth consideration which I apologize in terms of the ambiguity was:

11

"Could possibly be some sort of ... "

12

and I have no idea what that was, I think it was probably accidental that I spelled wrong. It could be some sort of drug overdose accidental or otherwise.

14

15

Q. Thank you, Doctor, for

16

deciphering the words. Before we come to what you had in mind, you mentioned on a reading that at one point in writing your consultation note the patient had died. Can you tell me please the circumstance in which you were (a) seeing Laura Woodcock and (b) in which you were writing the consultation note?

19

20

21

A. Well, we were asked to see the child and as I recall, and it is not that clear, that as we arrived to see the baby she did not look well and we had at best a very cursory and superficial

22

23

24

25



A.5

1

2

examination of the child, at which time it became clear that something was dramatically happening and the resuscitation team moved in.

4

5

Q. Forgive me, Doctor. You keep saying "we". Was somebody with you from your own service?

6

7

A. My fellow was with me, Dr. Scott I think it was at that time.

8

9

Q. Yes, thank you. And the resuscitation moved in, you say?

10

11

A. And we moved out.

12

Q. Yes. You didn't participate in the resuscitation efforts?

13

14

A. If we did it was temporary because they arrived within two or three minutes of a call.

15

16

Q. Right.

17

A. And then we retired to another room to discuss the case and really at that point the baby was deceased and I suppose one might argue whether there was any point writing a note at all but I did.

18

19

20

21

Q. Now, Doctor, in light of subsequent events that occurred in the cardiology ward in the Hospital, clearly the note which you did write,

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A.6

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on its face at least, seems to have a significance which may not have been intended to bear. But we are interested in the fourth of your differential diagnoses obviously. As I understand the process of differential diagnosis, that is when, forgive me for putting it crudely, when the physician sits down and scratches his head and says what could possibly be the cause of this?

A. That's correct.

Q. And lists the possible causes.

A. That is correct.

Q. And I take it that in doing so he notes things that he will discard at a later stage upon further consideration or investigation?

A. In all probability.

Q. Yes. But among the four possible explanations that occurred to you was the Item No. 4. What was it that you were seeking to explain?

A. I think every time we see a child, or for that matter an adult with liver disease, one has to consider the possibility of some toxin in the very broadest sense.

Q. But it was liver disease you were seeking to diagnose?



A.7

1 A. That is correct.

2 Q. Thank you.

3 A. That is correct.

4 Q. And do I understand then one
5 should not read this note as referring to possible
6 cause of death?

7 A. No, there is no question in my
8 mind.

9 Q. Thank you. Now, you say you
10 have to consider some toxin, some possibility of
11 toxicity whenever you see liver disease in an infant?

12 A. That is correct, yes.

13 Q. Now, the words that peak our
14 interest ---

15 A. I appreciate that.

16 Q. -- are the three at the very
17 end of the note because in considering the possibility
18 of toxicity I take it you had to consider the
19 possibility of some medication overdose of some kind.
20 That could be one explanation, could it?

21 A. Statistically speaking I suppose
22 if someone is going to be poisoned it is likely a
23 drug and it is likely going to be an overdose;
24 statistically.

25 Q. And when you say poison are you
using that in an entirely non-sinister sense?

A. That is correct.



A.8

1

2

Q. You mean suffer some toxic effect?

3

A. That is correct.

4

Q. Now, "accidental or otherwise."

5

Can you tell us please what you had in mind in

6

referring to the possibility of drug overdose

7

"accidental or otherwise"?

8

A. I will regret to my dying day

9

writing that comment. I think it was almost a cliché,

10

rather like imaginary or real or something like that.

11

The whole problem of drug toxicity gets so complex.

12

We can prescribe drugs that we know are hepatic toxins

13

but we know have a therapeutic advantage and we will

14

accept the risk. I wouldn't consider that an

15

accidental state of affairs if I prescribed something

16

that might in fact cause liver damage. It is also

17

possible to have an idiosyncratic reaction totally

18

unexpected, unpredictable to a drug that could affect

19

the liver. It is also possible it can be the wrong

20

drug given.
That is a very sloppy phrase and I
apologize for it.

21

Q. No need to apologize for it at

22

all, Doctor, it is the language that you used. I

23

ask you bluntly, did you contemplate as the remotest

24

possibility intentional overdose of a drug as the

25

cause of this child's liver problem?



A.9

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A. I did not, sir.

3

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Q Did you have any awareness at the time you wrote the note of the medications that had been prescribed for the child?

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A. I think not because we tend to look very superficially at the chart prior to seeing the baby and then to come back and go through it with care when we have some sort of an idea what we are dealing with. The chart really was not available to us because of the arrest. The chart is subpoenaed to the resuscitation team and is in their possession for often an hour or so. So, we had a very casual superficial review of that chart.

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Q Well, do I understand, Dr. Weber, that had Laura Woodcock not died and had you followed up trying to establish a diagnosis for her problems one of the things you would have been interested in establishing is the medications which had been prescribed for her to consider the possibility of overdose of the kind you've mentioned?

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A. That is correct.

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Q. Doctor, there is not as I understand you now any suggestion either of prescience or a hypersuspicion in the note or Laura Woodcock's chart?

A. Certainly in my mind there is not, sir. I think taken in context with the rest of the note it really does refer precisely in a constrained fashion to the liver disease.

MR. LAMEK: Dr. Weber, thank you very much. There may be some questions for you.

THE COMMISSIONER: Mr. Roland, have you any questions?

MR. ROLAND: I have a few questions.

EXAMINATION BY MR. ROLAND:

Q. Dr. Weber, I take it digoxin has no effect on the liver?

A. None that I am aware of, sir, no.

Q. And I gather in any situation where you may suspect an intentional overdose you wouldn't simply write a note in the chart but you would take your concern to another physician either the ward chief or someone else if you suspected that sort of thing?

A. I certainly would, and I think



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if I had suspected some more devious problem it wouldn't be under No. 4, the differential. I would have thought it would occupy a more prominent place in a note.

Q. And until these proceedings began before this Commission did anybody contact you about this note, either the Coroner or the Police, the Crown Attorneys or anybody in the higher investigative process of the death of children in the hospital until this particular Commission?

A. No. No, sir.

MR. ROLAND: Thank you.

THE COMMISSIONER: Miss Chown?

MS. CHOWN: No questions, thank you, Mr. Commissioner.

THE COMMISSIONER: I think, Mr. Howard, you are next?

MR. HOWARD: No questions, thank you.

THE COMMISSIONER: Mr. Strathy?

MR. STRATHY: No questions.

THE COMMISSIONER: Mr. Hunt?

MR. HUNT: Just briefly, thank you.

CROSS-EXAMINATION BY MR. HUNT:

Q. Doctor, you have explained the purpose of this consultation note as one where you set



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out the possibilities that you might consider with respect to the diagnosis?

A. That is right.

Q. Would you expect that others, other doctors who would see your note, would take it in the same way that you have written it as being a differential diagnosis?

A. I would anticipate so, yes.

Q. And you have indicated that you certainly didn't contemplate the possibility of intentional overdose.

Had you done so, is there any question but that that matter would have been reported by you to somebody in a more direct way than this type of note?

A. If in fact I had suspected --

Q. Yes?

A. -- there is no question I would have made a fuss.

Q. And you are aware that the death of Laura Woodcock was referred to the Coroner?

A. No, I was not.

Q. If that had been your diagnosis at the time, would you yourself have been concerned that the case be reported to the Coroner on that basis?



1

2

A. I am sure I would have.

3

Q. And if your note had meant

4

anything more than you have explained, may we take it

5

that you yourself would have made sure that you

6

brought to the attention of the Coroner your own

7

feelings with respect to it?

8

A. I am sure I would have.

9

MR. HUNT: Thank you, sir.

10

THE COMMISSIONER: Mr. Young?

11

THE COMMISSIONER: Miss McIntyre?

12

MS. McINTYRE: No questions.

13

THE COMMISSIONER: Miss Goodman?

14

MS. GOODMAN: No questions, thank you.

15

THE COMMISSIONER: Miss Solomon?

16

MS. SOLOMON: No questions.

17

THE COMMISSIONER: Mr. Labow?

18

MR. LABOW: No questions.

19

MR. SHINEHOFT: No questions.

20

THE COMMISSIONER: Well, I guess you
can't reply to anything that hasn't been - well, yes,
you did; you had Mr. Hunt.

21

MR. ROLAND: I have nothing.

22

THE COMMISSIONER: You will pass on

23

that one; all right.

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I am sure you have a long reply, have you?

MR. LAMEK: Tremendously searching re-examination.

It may be that we are the first that read your consultation note. You should at least be flattered by that.

THE WITNESS: I am.

MR. LAMEK: We are glad that you came and explained it for us. Thank you very much.

THE WITNESS: Thank you.

THE COMMISSIONER: Thank you, Doctor. I can't tell you how lucky you are to get off so fast and so soon.

THE WITNESS: I realize that.

--- Witness withdraws

THE COMMISSIONER: Yes, Mr. Lamek?

MR. LAMEK: May I call now please Dr. Rodney Fowler.

DR. RODNEY S. FOWLER, Sworn

DIRECT EXAMINATION BY MR. LAMEK:

Q. Dr. Fowler, you are a Staff Cardiologist at the Hospital for Sick Children?

A. I am.

Q. And you are graduated, as I



1

2

understand it, from the University of Toronto,

3

Faculty of Medicine, with a degree of Doctor of

4

Medicine in 1951?

5

A. That is correct.

6

Q. And did an internship at the
Toronto General Hospital?

7

A. Yes.

8

Q. Subsequently a pediatric intern-
ship and then a residency at the Hospital for Sick
10 Children?

11

A. Yes.

12

Q. And as I understand it, Dr.
Fowler, apart from the year 1954 to 1955 which you
spent as Clinical Fellow in Pathology at the New
14 York Babies Hospital, Presbyterian Medical Center
15 in New York, you've spent your entire professional
16 life at the Hospital for Sick Children, have you not?

17

A. Yes, that is true.

18

Q. And since 1969 you have been a
full Professor in the Department of Pediatric and
19 Faculty of Medicine, University of Toronto?

20

21

A. No. I went up the ranks of
academic pursuits and I was a full Professor perhaps
22 three or four years ago.

23

Q. Thank you. Your first

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professorial appointment --

A. Yes.

Q. -- was in 1969 as Assistant
Professor, perhaps?

A. Yes. Yes, that is true.

Q. And you are now a Senior Staff
Physician at the Hospital for Sick Children?

A. Yes.

Q. And the Head of Clinical
Services in the Division of Cardiology at that
hospital?

A. Yes.

Q. You are a member, Doctor, of
several professional societies and committees?

A. Yes.

Q. And the author of many papers,
chapters in textbooks, abstracts and things of that
sort?

A. Yes.

Q. Dr. Fowler, I won't embarrass
you further. You've provided me with a copy of your
curriculum vitae.

I would ask, Mr. Commissioner, that that
be the next exhibit.

THE COMMISSIONER: 173.



1
2 --- EXHIBIT NO. 173: Curriculum Vitae of
3 Dr. Rodney S. Fowler.

4 MR. LAMEK: Q. I will put that in
5 front of you, Dr. Fowler.

6 Perhaps a couple of things I would
7 like to refer to. Among the publications which are
8 referred to in the curriculum vitae it appears that
9 as long ago as 1964 you wrote on the subject of
10 accidental digitalis intoxication in children, did
11 you not?

12 A. Yes, that is true.

13 Q. And that was a paper published
14 in that year, 1964, in the Journal of Pediatrics?

15 A. No. I think that - yes, that
16 is right, The Journal of Pediatrics.

17 Q. Yes. Doctor, I am showing to
18 you a copy of that paper by yourself and Dr. Keith
19 and is it Mr. Rath?

20 A. No, he was a doctor.

21 Q. And that is a copy of the paper
22 you published in that year?

23 A. Yes.

24 MR. LAMEK: May that be the
25 next exhibit please, Mr. Commissioner?

THE COMMISSIONER: There is a



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reference to that somewhere in this previous ...

MR. LAMEK: Yes, it is referred to
in there.

THE COMMISSIONER: And do you know
the page number?

MR. LAMEK: I will find it.

THE COMMISSIONER: It doesn't matter
that much.

MR. LAMEK: Number 8 on page number 2
of the curriculum vitae, sir.

THE COMMISSIONER: All right.

That will be Exhibit 174.

MR. LAMEK: Thank you, sir.

--- EXHIBIT NO. 174: Copy of excerpt from
The Journal of Pediatrics
entitled "Accidental
Digitalis Intoxication in
Children".

MR. LAMEK: Q. Dr. Fowler, we have
heard a good deal at different times in this Commission
so far about the symptoms of digoxin intoxication.

A. Yes.

Q. And that, as I understand your
paper, is something to which you paid attention in
the study which is referred to in the paper?

A. Yes.

Q. You studied some 48 children who



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4

5

had been treated at the Hospital for Sick Children
in a period from January, 1957 to January, 1963 for
accidental ingestion of digitalis in one form or
another?

6

A. Yes.

7

8

Q. And I take it these were
children who grabbed mother's pills or grandmother's
pills, that sort of thing?

9

A. Yes, that is right.

10

11

Q. All but two of those children
had normal hearts as I read your paper?

12

A. Yes.

13

14

15

Q. And in that respect I take it
they are unlike our group of 36 children only three
of whom had normal hearts or structurally normal
hearts?

16

A. Yes, that is correct.

17

18

19

20

Q. And of the children whom you
studied, the 48, again summarizing what is in the
paper, 82 percent of them were between the ages of
1 and 3 years?

21

A. Yes.

22

Q. You recall that?

23

A. Yes.

24

Q. So in other words generally a

25



1
2 somewhat older group than the children with whom we
3 are concerned here?

4 A. Yes.

5 Q. But I am interested in the
6 symptoms of toxicity that you observed, Dr. Fowler.

7 Can you tell me is there any reason to
8 think that the kind and range of symptoms would be
9 different in a group such as ours, generally younger
10 than your study group and in almost all cases of more
or less severe congenital heart disease?

11 A. Yes. I think there would be
12 many reasons why this is not a comparable group at
13 all.

14 Q. Not a comparable group, but
15 would the symptoms differ?

16 A. The symptoms may be similar but
17 I think that this is - we are dealing with people who
18 are very, in this particular, the vast majority of
19 people were studied that we are discussing here today,
20 have very serious heart disease, and this on top of,
21 if we are talking about digoxin this may very well
change the situation.

22 I think the fact that vomiting is a
23 common thing in childhood it probably could occur with
24 our - which it did - in our group that we are discussing
25



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today.

Q. Indeed, Doctor, I take it that the accidental cases of digoxin toxicity are probably the minority of cases of toxic effects from that drug, are they not?

A. Yes, I think in overall, I think that digoxin toxicity in childhood is probably less common than it is in adults, but I think this is a smaller group than we are talking about.

Q. On the second page of the paper, Dr. Fowler, you have listed the observations or findings or symptoms apparently presented by the 48 patients.

A. Yes.

Q. With incidence of those symptoms.

A. Yes.

Q. Are you able to tell me on the basis of your experience in cardiology going back now some 30 years whether those same symptoms characterize digoxin intoxication among children, for example, on the cardiology wards of the Hospital for Sick Children?

Is there any of those symptoms which you would not expect to see in your ward population of your hospital if a child for any reason became toxic as a result of digoxin ingestion?



1
2 A. I think that drowsiness,
3 convulsions, and death of course are very unusual
4 among our patients who have digoxin toxicity now.

5 I think we have had great advances,
6 of course, in our ability to monitor digoxin since
7 we have had levels to follow things along, and I
8 think that there are very few patients who get to
9 that stage before they are recognized. When they
are in the hospital.

10 Q. The significance of your
11 observations as to symptoms I take it, Doctor, that
12 you were dealing with children who had ingested in
13 this case acute --

14 A. Yes.

15 Q. -- substantial doses of the
16 drug?

17 A. Yes.

18 Q. And the findings that are listed
19 at the foot of page 89 are those that you observed in
those patients?

20 A. Yes.

21 Q. Now, Doctor, I am also interested
22 in a paper which you wrote with a Dr. Thornback,
23 published in the Canadian Medical Association Journal
24 in 1975, and that was entitled, "Sudden Unexpected
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Death in Children with Congenital Heart Disease".

Do you recall publishing that paper?

A. Yes.

Q. And Doctor, is that a copy of the paper which you published?

A. Yes, this is a copy of this.

MR. LAMEK: Thank you. May that be the next exhibit, please?

THE COMMISSIONER: Exhibit 175.

--- EXHIBIT NO. 175: Copy of paper published in the Canadian Medical Association Journal entitled, "Sudden Unexpected Death in Children with Congenital Heart Disease".

MR. LAMEK: Q. Again as I read it in that paper you reported the results of a study of some 18,000 patients of the Cardiac Division of the Hospital for Sick Children covering a period of some 31 years?

A. Yes, that is correct.

Q. And all of these patients as I understand have died outside of the hospital, between the ages of 1 and 21 years of age?

A. I am not a hundred percent sure that they all died - that may be true; it is a long time since I reviewed this, but that may be true.



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Most of them were certainly outside.

THE COMMISSIONER: Sorry, the 18,000 children didn't all die?

THE WITNESS: No, no. This is the population.

THE COMMISSIONER: Is it the 33 that were --

THE WITNESS: Thirty-three children out of the 18,000 children died unexpectedly, and there are many of those other children may have died but they didn't die unexpectedly.

THE COMMISSIONER: Yes, I see.

THE WITNESS: And this, of course, is one of the great problems, the definition of "sudden death".

THE COMMISSIONER: Right.

THE WITNESS: And many things, and of course each person would have his own criteria for deciding whether it is sudden or not.

MR. LAMEK: Q. Precisely, Doctor. It is for that reason that I am interested in the article, obviously.

A. Yes.

Q. Now again I recognize, of course, that there are differences between the group that you



1
2 studied for purposes of this paper and the group in
3 which we are interested. Your purpose was to
4 determine how many of the 18,000 had died suddenly
5 and unexpectedly and from what cause.

6 A. Yes. That is correct.

7 Q. Do I fairly understand that?

8 A. Yes.

9 Q. And for the purposes of the
10 study you established the criteria for sudden and
11 unexpected death as being natural death occurring
12 either instantaneously or within 24 hours after the
onset of critical symptoms?

13 Do I understand your paper correctly?

14 A. Yes. I am simply using the
15 definition that Dr. Lambert used in his paper on the
16 same, similar subject from Buffalo.

17 Q. Yes?

18 A. And so I have used the same
19 definition here.

20 Q. Yes. But if less than 24 hours
21 elapses from the onset of critical events, critical
22 symptoms to death, then that for the purposes of this
23 classification is treated as a sudden and unexpected
24 death?

25 A. Yes.



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Q. And of the 18,000 only 33 by that definition died suddenly and unexpectedly? Do I understand that?

A. Yes.

Q. And that small number I take it certainly justified the statement in the first sentence of the paper which is on the second page after the abstract that:

"Sudden unexpected death is unusual in children with congenital heart defects."

That certainly summarizes the results of your study?

A. Yes.

Q. And it is certainly apparent from the study, Dr. Fowler, that children with a variety of heart problems, including arrhythmias and heart block may die suddenly and unexpectedly?

A. Yes.

Q. But that such deaths were found to be the exception rather than the rule, were they not?

A. Yes. True.

Q. As I say, I recognize the differences between your study group and the group in which we are interested, but do you have any data to



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establish that in a younger population of children
with congenital heart disease in a hospital, sudden
and unexpected deaths are either unusual or the norm?
Are there any data of which you are aware concerning
the incidence of sudden unexpected death by this
study's definition or any other in a young hospitalized
cardiac population?

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A. No, I can't think offhand of reading a study of that sort, it may well have been done but I have not read it.

Q. Indeed you and Dr. Keith who was one of the co-authors of the first paper that we looked at, prepared, did you not, a chapter for inclusion in a book edited by Dr. Rowe and others on "Heart Disease in Infancy and Childhood"?

A. Yes.

Q. Did not you and Dr. Keith prepare the chapter on "Sudden Death and Treatment of Cardiac Arrest" in that book?

A. Yes, that is true.

Q. And that was published I believe in 1978?

A. Yes.

Q. I am sure you will be able to recognize a copy of the chapter that you and Dr. Keith worked on?

A. Yes, this is it here.

MR. LAMEK: May that be the next exhibit, Mr. Commissioner?

THE COMMISSIONER: Yes, 176.

--- EXHIBIT NO. 176: Chapter 18 - Sudden Death:
Treatment of Cardiac Arrest.



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MR. LAMEK: Q. Dr. Fowler, I am interested in your writing in this chapter for two reasons. First, in the section beginning on page 303, the second page of the chapter, there is the section:

"Sudden Death of Cardiac Origin"?

A. Yes.

Q. And after listing the conditions, cardiac conditions that may result in sudden death, you go on at the foot of the left-hand column, do you not, to refer to your 1975 study published in the Canadian Medical Association Journal to which we have just referred?

A. Yes, that is true.

Q. You say:

"Recently Thornback and Fowler at the Hospital for Sick Children, Toronto, have reviewed the hospital experience. They point out that sudden and unexpected death is uncommon in the child with cardiac disease."

And at the top of the next column you repeat your definition, or criteria for "sudden death"?

A. Yes.

Q. Now this chapter, as I understood



C.3

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2 it, Doctor, and indeed the whole work, dealt with
3 infants as well as children, did it not?

4 A. Yes, that's true. However, it
5 is very important to realize that the bottom of the
6 last paragraph on the left-hand column:

7 "Unexpected death is uncommon in the
8 child with cardiac disease."

9 And I think this is very important that we are talking
10 about children as opposed to infants, and you know,
11 the definition of infants usually is up to two, and
12 from two to adolescence, eighteen, nineteen, is child-
13 hood.

14 Q. Doctor, we have heard of
15 different definitions of infancy here. Someone
16 suggested up to 12 months of age rather than 24?

17 A. Yes.

18 Q. And indeed in your study in the
19 CMA Journal did you not take children from one to
20 twenty-one?

21 A. Yes, I guess perhaps you are
22 correct.

23 Q. Certainly the foot of the left-
24 hand column on page 303, a contrast is drawn with the
25 incidence of sudden death in adults.

A. Yes.



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Q. With cardiac problems.

A. Yes.

Q. But, Doctor, if I turn back to the first page of the chapter, indeed the very opening sentence of the chapter under the heading: "Sudden Death", I read:

"Sudden or unexpected death during infancy in childhood is well known to the laity and to the medical profession which is commonly publicized in the daily press."

And there is reference under "General Causes" to the death of infants and "Sudden Infant Death Syndrome" and that sort of thing.

Doctor, could one reading this chapter not infer that when, on page 303, you refer to the paper in 1975 and point out the conclusion:

"That sudden and unexpected death is uncommon in a child with cardiac disease."

The inference is, is it not, that that proposition is true equally of infants as of children?

A. Well, I am not quite sure that you can make that jump in logic because on our general experience dealing with people with severe



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cardiac disease sometimes their deaths are somewhat unexpected.

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Q Yes.

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A And I think that generally speaking that paediatric cardiologists would, in the infant group, are not as, you know, they are not as surprised about the deaths of their children with severe heart disease than they are if they survive one to two years and are ambulatory and playing around.

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Q I understand that, Doctor, but we are not talking about the mortality of infants as compared with older children, or even adults, we are talking about the suddenness of death and that I understand is the subject matter of your chapter, and is part of your paper?

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A Yes.

Q And in terms of suddenness of death --

A Yes.

Q -- which you found on the large review of children to be unusual --

A Yes.

Q -- certainly there is nothing in the chapter from the Rowe text to suggest that that finding is not applicable to an infant population as well as to an older child population?



C.6

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2 A. That may be true on the text,
3 but I think from experience that it is less unusual
4 for children with severe heart disease to die suddenly
5 than when they are older.

6 THE COMMISSIONER: Doctor, can I
7 interrupt just for a minute?

8 THE WITNESS: Yes.

9 THE COMMISSIONER: Can we go back to,
10 I guess it is the exhibit, the first document which
11 is: "Sudden Unexpected Death in Children with
12 Congenital Heart Disease", and that I guess is 174,
13 175, I'm sorry. I don't understand that first sentence:

14 "Summary: Of 18,000 children with
15 organic heart disease evaluated at
16 The Hospital for Sick Children,
17 Toronto, between 1940 and 1971, 33
18 died suddenly and unexpectedly between
19 1 and 21 years of age."

20 Now you have to read this about four or five times
21 before you understand what it says. Does it mean that
22 18,000 children with organic heart disease are from
23 all ages from zero up, is that right?

24 THE WITNESS: No, no, from one.

25 THE COMMISSIONER: " ... 33 died
suddenly and unexpectedly between
1 and 21 years of age."



C.7

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Are you just dealing with children
between 1 and 21 years of age?

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THE WITNESS: No, this is a very
difficult, a precise figure to get from our records so
that we knew ---

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THE COMMISSIONER: I am not worried
about the grammar of it.

8

9

THE WITNESS: Oh, I see.

10

THE COMMISSIONER: Are the 18,000
children, you say:

11

" ... 33 died suddenly and unexpectedly

12

between 1 and 21 years of age."

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Are the 18,000 children, are they all between 1 and 21
years of age, or are they all children including
infants?

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THE WITNESS: I suspect that is from
all children, all the patients, all the individual
patients that we saw from birth to 21, but we have
excluded the people under a year for the reasons that
I have just discussed.

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THE COMMISSIONER: But you get an
impossible equation, you get at least an unfair and
inaccurate equation if you take the 33 of between 1
and 21 and the 18,000 of between zero and 21. So the
33 out of 18,000 doesn't mean anything, because we



C.8

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don't know how many of them are between zero and 1.

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Now, that is my problem.

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THE WITNESS: Yes. Well, I can understand it and I can't clear it up, Mr. Commissioner, because I can't remember where that 18,000 came from, but I suspect that came from our records showing that we saw 18,000 new patients.

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THE COMMISSIONER: All right. If you look on page C you see under:

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"Results: Of the 18,000 patients with organic heart disease evaluated over the 32 years, 3,055 died between age 21 ... ".

14

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Now, that would look to me, it is not qualified in any way, that would indicate that all, that the 18,000 patients were all of the patients from zero on?

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THE WITNESS: Yes.

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THE COMMISSIONER: And that these deaths in patients over one year old, which is some different figure I take it from the 18,000?

20

THE WITNESS: Yes.

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THE COMMISSIONER: 33 were sudden and unexpected by the above definition?

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MR. STRATHY: Mr. Commissioner, may I interject?

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THE COMMISSIONER: Yes.

MR. STRATHY: I don't know if I can help, perhaps I will confuse it.

THE COMMISSIONER: Well, I haven't been reading it thoroughly but I am just getting lost in the first sentence.

MR. STRATHY: Well, I think you have been referring to page 746, and if you look at the very top of the page, the second page of the article, the very top of the page, the left-hand side, and the second half of that top paragraph, it says:

"We studied children who had died a sudden natural 'death occurring instantaneously ... '".

THE COMMISSIONER: I'm sorry, the first paragraph?

MR. STRATHY: The first paragraph.

THE COMMISSIONER: Yes, all right.

MR. STRATHY: About half way down.

"We studied children who had died a sudden natural 'death occurring instantaneously or within 24 hours of acute symptoms or signs', including only ambulatory patients who had died out of hospital and were aged 1 to 21



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"years to avoid the controversy
surrounding 'cot deaths' in infancy."

THE COMMISSIONER: But what of the
18,000, that is what worries me, what are the 18,000,
are they the 18,000, are they all of the children
that have overcome ---

THE WITNESS: Yes, those are all the
18,000 new patients that were seen in our Hospital
in the cardiac ---

THE COMMISSIONER: I may be misunder-
standing, it is the first time I have seen this
article, but you know, it doesn't make any sense to me.
Because if you are studying 18,000 children, say you
are studying 18,000 children and then you are going
to really study only a lesser quantity, I should know
what the lesser quantity is, shouldn't I, to make
sense out of the article?

THE WITNESS: Well you see, as was
pointed out a minute ago of the whole 18,000, 3,055
died, that is everybody, infants and so on.

THE COMMISSIONER: Yes.

THE WITNESS: The ones that we are
discussing in our paper are the ones who died of that
18,000 people that we had from our record room, then
we got all the people who died which were three thousand



C.11

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and a bit, and the only ones that we talked about are the ones who happen to have died between age 1 and 21.

THE COMMISSIONER: There is an old saying about apples and oranges and I am afraid we are getting into apples and oranges here. I may be wrong, but I would like to have had the figures relating to those children who you examined at The Hospital for Sick Children between the ages of 1 and 21, and then I would be able to compare sensibly those who died suddenly and unexpectedly, that you have left out of the equation. I think you left out of the equation the children under one.

THE WITNESS: No, because it is pointed out that 3,000 of the - like 18,000 brand new patients, individual people.

THE COMMISSIONER: 3,000 died?

THE WITNESS: 3,000 died and of those people that died ---

THE COMMISSIONER: No, I am sorry, no, I don't think that is right:

"Of these deaths (in patients over 1 year old) 33 were sudden and unexpected by the above definition:".

THE WITNESS: Yes.

THE COMMISSIONER: So they are not, as



C.12

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I would think, 3,055 are those who died from zero to 21.

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THE WITNESS: That is right.

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THE COMMISSIONER: Out of the 18,000.

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THE WITNESS: Yes.

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THE COMMISSIONER: But then you go

7

on to say:

8

"Of these deaths (in patients over

9

1 year old) 33 were sudden and

10

unexpected by the above definition:"

11

and if you don't read it very carefully you would think

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it was 33 out of 3,055, but it isn't 33 out of 3,055,

it is 33 out of some other figure?

13

THE WITNESS: No, it is 33 out of

14

3,055, those are the ones who died, they happened to

15

have died at that age and it comes from 18,000

16

individual patients.

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THE COMMISSIONER: Well, Mr. Lamek,

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you may do better than I have done, I am still

concerned.

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MR. LAMEK: I understand your concern,

20

sir. It may be in any event after we have heard from

21

Dr. Fowler, we will be hearing from Dr. Vera Rose and

22

her help is acknowledged in the final paragraph of

the article:

23

" ... inreviewing the computer file."

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C.13

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And maybe at that stage we will have a solution.

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Q. As I understand it, Dr. Fowler,

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the gross study group, the 18,000 ---

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A. Yes.

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Q. ... comprised all patients seen

7

in the Cardiology Division of the Hospital from day of

8

birth to age 21, whatever the ceiling age is, in the

study period?

9

A. Yes, in this period, yes.

10

Q. Of those 18,000 patients ---

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A. Yes.

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Q. ... some of whom were infants

and some of whom were young adults ---

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A. Yes.

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Q. ... 3,055 died before reaching 21?

15

A. Yes, correct.

16

Q. And of the 3,055 who died before

17

reaching 21 you concluded that 33 died suddenly and

18

unexpectedly between the ages of 1 and 21?

19

A. That is correct.

20

Q. What you do not tell us is how

21

many of the patients died suddenly and unexpectedly

below the age of 1?

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A. That is not the subject of

23

this particular paper. In other words, that is another

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C.14

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2 paper altogether to look at the infants.

3 Q Was it published?

4 A No, no, because that is not of
5 as much interest as the ambulatory people with
6 congenital heart disease.

7 THE COMMISSIONER: If we knew what 33
8 was a proportion of we would know more about its value.
9 We don't know whether 33 is a proportion of 3,055 -
10 clearly it has got to be less than 3,055, and we don't
11 know whether it is 2500, it is 2,000, it is 1,000, or
12 it is even 55?

13 THE WITNESS: No, the number of deaths
14 in that group of patients is 3,055.

15 THE COMMISSIONER: That is not what
16 it says, but perhaps you are right.

17 THE WITNESS: That is actually what
18 the figures are and all of those people ---

19 THE COMMISSIONER: 3,055 were those
20 who died between 1 and ---

21 THE WITNESS: No, no, they died from
22 zero to 21. The only ones that the paper is about
23 are the ambulatory paper children who are above one
24 year of age. So all the rest may have died in the
25 Hospital expectedly, or they would have been infants
and they might have died unexpectedly or expectedly



C.15

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in the Hospital, but they are not addressed in this particular paper.

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THE COMMISSIONER: Yes, all right. Can you help us further?

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MR. STRATHY: I am not counsel for the witness, but it seems to me in fairness to the witness the comparison of apples and oranges with Mr. Lamek using this article it is the oranges and comparing it to our infants ---

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THE COMMISSIONER: I went back to this and it is not his fault, it is mine, I am going to take full responsibility for this. I just want to know what the 33 compares with, that's all.

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MR. STRATHY: What the witness is saying, with respect, Mr. Commissioner, that the purpose - he is saying for the purposes of this research he was just interested ---

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THE COMMISSIONER: The fact that there were 33 children.

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MR. STRATHY: 33 children walking around.

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THE COMMISSIONER: I don't know whether that 33, what proportion it could possibly be of anything, and yet figures were thrown around of 18,000 and 3,055 and they may mean something but they don't mean, they are not out of the same bag as the 33.



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MR. STRATHY: Well, exactly, the point is Mr. Lamek is using this article for a purpose, which in fairness to the witness seems inappropriate.

THE COMMISSIONER: I wonder if I might just say though that the reader, I think, deserves perhaps a little better consideration than this 18,000 children, and another figure of 3,055, and then we come to 33 out of that, so the 33 doesn't help us.

MR. STRATHY: No, I think not, that may be so, Mr. Commissioner, but I think all the witness was saying and what it seems to me the article says if you look at the children under one year of age it might distort the final statistic and it might help for reading purposes to know what the figure is but I don't think he can tell us.

THE COMMISSIONER: Yes, okay.

MR. ROLAND: Just to follow that up a bit, Mr. Commissioner. It doesn't help you because you are looking at it from a statistical point of view. I think all the witness is doing is telling you what population he took these 33 out of.

THE COMMISSIONER: He doesn't tell us how many there were.

MR. ROLAND: It doesn't provide any statistical analysis, it doesn't purport to do that.



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You will see from the article he then goes into the particular kinds of diseases and it isn't intended to do some sort of statistical analysis of deaths to give you some percentage figure, it is rather simply showing you the population from which he took his 33.

THE COMMISSIONER: Yes, all right.

MR. ROLAND: So I think it is a little unfair to be critical of him in not providing you with the statistical information which he never intended to in this article.

THE COMMISSIONER: Well, that may be. I probably am being unfair, but all I can say is I started off to read this thing with the immediate impression that 33 was a percentage but was related to 3,055 and 18,000 only to find now as we go into it they are not related at all.

MR. ROLAND: But we are all coming from perhaps a different direction than the author was when he wrote it.

THE COMMISSIONER: Yes, all right. All right, it is my fault then, let us get on with it.

MR. LAMEK: Not at all your fault, Mr. Commissioner, we all like to see if we can make use of such information as there is available.

MR. LAMEK: O Dr. Fowler, believe me,



C.18

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2 I do not intend to distort or mistake the purposes
3 for which this paper was written and the premises
4 upon which it was written, you were not writing it
5 for our purposes, and we understand that.

6 Certainly the conclusion that you
7 were able to draw without perhaps the statistical
8 information that the Commissioner has referred to, was
9 that among the population that you were interested in,
10 that is to say paediatric cardiology patients over
11 the age of one, the incidence of sudden unexpected
12 death was small?

13 A. Yes, that's true.

14 Q. And you will recall the question
15 that I asked you was whether there was any reason to
16 think that the incidence would change drastically if
17 one were looking at a younger hospitalized cardiac
18 population, and you have told me there are no studies
19 on that particular point?

20 A. Yes.

21 Q. I gather that it is your
22 experience, your impression over many years of
23 practising as a cardiologist in a paediatric hospital,
24 that the incidence of sudden and unexpected death is
25 perhaps rather higher than you observed it in the
study group that you had for the paper?



C.19

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A. Yes, that is true.

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Q. Is it, in your experience, in
your judgment, a sufficiently high incidence as to
become the norm rather than the exception?

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A. No, it is not that common.

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Q. We have heard over and over
again in this Commission, Dr. Fowler, that children
with a variety of cardiac problems may die suddenly
and your research supports that proposition, I take it?

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A. Yes.

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Q. But I take it too that your
research indicates that although death may come
suddenly to children with congenital heart problems
it does not usually do so, is that fair?

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A. Yes, I think this is true.

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Q. You have read the

transcript of the evidence given here by Dr. Rowe
I take it?

A. Yes.

Q. And you will recall that

repeatedly in reviewing the medical records of the
36 children and especially in considering the
manner of their dying it was observed that the child
suffered a sudden onset of critical symptoms which
progressed rapidly and inexorably to death. Do you
recall seeing that repeated, do you?

A. Well, I think there is

some - I think that that characterization of the
deaths of all of these patients is not correct. I
think that there are various situations in which
people felt that the child was stable, quotes.

Q. Yes.

A. When in actual fact he's

in dreadful medical status, if you look at the
chemical results and so on and that he is just
hovering between life and death even though he
doesn't, to some observers, not seem to be terribly
sick and then suddenly he does succumb.

But I think that characterization

occurs in some of the patients that you are describing



D-2

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here.

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Q. Well, certainly that was

4

Dr. Rowe's point.

5

A. Yes.

6

Q. There were changes

7

occurring in the patients that may not have been

8

readily perceptible to other than a highly-trained
eye?

9

A. Yes.

10

Q. And I accept that, Dr.

11

Fowler. But do you not also recall reading that he

12

repeatedly agreed to the onset of the critical

13

symptoms, the terminal events was sudden. He said

14

it was in many cases not unexpected given the signs
that were in the wind?

15

A. Yes.

16

Q. But that it was sudden?

17

A. Yes, yes, I think we would

18

have to accept that.

19

Q. Now, in light of your own

20

research and your own impression, Dr. Fowler, does

21

that high incidents of sudden onset of critical

22

symptoms and rapid death following the sudden onset in

23

our group of 36, cause you any concern?

24

A. Well, I think that I'm not

25



D-3

1
2 as surprised about that occurrence in little
3 infants that are sick compared to older children
4 who are ambulatory and so on. But I think that
5 there is certainly some sort of surprise perhaps
6 that this occurred as frequently as it did in that
7 particular period, but of course there are many
8 explanations for the fact that, including the
9 severity of the disease and the type of infant and
the age and so on.

10 Q. Doctor, were you aware
11 during the epidemic period itself, that is, from
12 July of 1980 until March of 1981, were you aware
13 then that many of these patients appeared to be
14 dying suddenly in the sense that there was a sudden
15 onset of critical symptoms and a rapid progression
16 of those symptoms to early death. Were you aware
of that as a recurring pattern then?

17 A. No, I wasn't as aware of
18 that at the time when I was living through that as
19 I am now and in retrospect looking over the charts.
20 I was aware of the fact that people were dying and
21 I wasn't as aware that they were as suddenly
22 occurring and to me these were very seriously ill
23 children who aren't expected to have a long life
24 who just happened to die.
25



D-4

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I wasn't aware at that time of the relative rapidity of what happened in some of the patients.

5

6

Q. Doctor, I said I had two areas of interest in the chapter which you wrote for the book edited by Dr. Rowe and others.

7

8

A. Yes.

10

11

Q. My second point of interest in that chapter is what you say about treatment of cardiac arrest in infants and children by cardiac massage. It begins at page 305 of the chapter.

12

13

A. Yes.

14

Q. Now, Dr. Fowler, I take it here we are talking about external cardiac massage?

15

16

17

18

A. Yes. Actually, I must admit that I wasn't involved in much of the writing of that particular paragraph, it was Dr. Keith that did most of that writing but this is what he is discussing in that particular part of this chapter.

19

20

Q. Yes. I take it there is nothing that you violently disagree with?

21

22

A. No, certainly not.

23

24

Q. We are talking about external cardiac massage which I understand it is,

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what, pressing on the outside of the patient's chest to produce some mechanical heart action, is it?

A. Yes.

Q. Obviously after an arrest.
trying
You are/ manually to pump the blood?

A. Yes.

Q. In and out of the heart in the hope of prompting the heart to resume spontaneous contractions, are you?

A. Yes.

Q. Now, if I understand this section of the chapter aright, Dr. Fowler, it was known as much as 20 years ago that external cardiac massage, although a very successful resuscitative technique, could cause damage to the rib cage and to the organs within the rib cage of the child?

A. Yes.

Q. Including the heart itself?

A. Yes, that's true.

Q. Pounding and pressing away on an infant's chest can have a pretty severe effect?

A. Yes.



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Q. Indeed, the patient might survive but at the cost of cracked ribs or perhaps more serious bruised and traumatized organs?

A. Yes.

Q. Now, that having been recognized, I take it that improved techniques were developed for external cardiac massage so as to minimize the risk of harm to the patient?

A. Yes.

Q. And one such technique is described in this chapter, is it not? Indeed, it is illustrated in the chapter on the next page?

A. Yes.

Q. Now, is that the technique for external cardiac massage that is in use at the Hospital for Sick Children, Dr. Fowler?

A. Well, I must admit that this is a field that I'm not too familiar with because it is the residents who are on the spot all the time who actually do the work of trying to resuscitate the patient, but I think that the technique is more or less as described here.

Q. Indeed, it would be surprising would it not if the Hospital were not taking advantage of techniques to maximize the



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effectiveness of the procedure while minimizing
the risk of it?

A. Yes, yes, yes.

Q. Yes. Do you have any
information Doctor, and I am drawing a bow at a
venture I promise you, but do you have any
information as to the incidents of damage to organs
or skeletal structure resulting from external
cardiac massage in resuscitation efforts at the
Hospital?

A. No, I have no idea. As
you know, it is very important to realize that
although this is a great advance, the percentage
of success, in other words, the people who go out
of the Hospital after having a cardiac massage
because of cardiac arrest is quite low, as you
know, it is 15. I believe Dr. Rowe discussed this,
15 to 20 per cent. So that many more than 50 per
cent of the patients do not survive all these
efforts under ordinary, or all circumstances.

Q. I understand.

A. And the ones that do
survive, I think that cracked ribs of course are
not a very worrisome thing.

Q. No.



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A. And tears of the liver can be very serious because they lead to actual hemorrhage into the abdominal cavity and of course you can bruise the heart and get problems as a result of that.

Q. And it is precisely to minimize the risk of those things happening that these new techniques were developed. I take it?

A. Yes.

Q. Dr. Fowler, the next thing I am interested in is your position as head of Clinical Services in the Division of Cardiology. For how long have you held that title?

A. I think ever since Dr. Rowe became the Chief of the Division of Cardiology. He organized the whole department and each of the people in it had a specific area of responsibility. So, I guess he arrived in '74, so, since that time I have had that job.

Q. What are the responsibilities of the head of Clinical Services?

A. Well, it is really a sort of a troubleshooting responsibility to help in the organization of physicians in the clinics and on the wards and help with the scheduling and the rotors



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of the physicians and any particular concerns of the nursing staff are often brought to me and we try to sort these out.

Q. In 1980 and '81, clearly you were occupying that same position?

A. Yes.

Q. Was there any structure or liaison with the nursing staff?

A. I don't think we had a definite meeting time which we now have and I think that it was just a matter of the head nurses discussing any particular problems with me. They often would go to Dr. Rowe as well. They often would go to him rather than to me, but theoretically, they are supposed to go through me to attempt to cut down on some of the minor problems that I could deal with.

Q. And we heard I think yesterday or at the end of last week that Dr. Freedom sometimes is regarded as the nurses' friend?

A. Yes.

Q. Someone they talk to. But your recollection is to the fairly frequent and regular communication between yourself and the nursing staff on the cardiology ward?



D-10

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2 A. I don't think it was very
3 frequent. really. The nurses, particularly in
4 the last 15, 20 years have very properly I think
5 have decided that they would like to, you know,
6 have a very high relationship to the administration
7 of the areas that the patients are so that there
8 are a lot of fairly senior trained nurses with a
9 lot of experience in administration who are running
10 the wards or the clinics and they usually do a
11 very good job. There are relatively infrequent
12 sort of areas where they have to have help from
13 the medical staff.

14 Q. Doctor, in the period from
15 July of 1980 to March of 1981 do you have any
16 recollection of any nurse on the cardiology service
17 ever telling you that Wards 4A and 4B were under-
18 staffed at night?

19 A. I can never remember a
20 specific conversation with the nurse. I think that
21 it had always been my conception that there weren't
22 as many nurses around the ward any time I was on
23 an evening compared to the day-time. But we
24 have discussed this with the nurses subsequently
25 and they say that there are many student nurses
and dietitians and physiotherapists and there are



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many, many disciplines on the wards in the day time and that they don't work in the evening and that in actual fact they have the same number of nurses in the day and night shifts and I have to accept that. I am not involved in the administration but they tell me that there are the same number of the core of nurses on the ward. But I had always had the feeling that there were many fewer people around but this may well not be the case.

Q. Well, no doubt there are fewer bodies around?

A. Yes.

Q. But that may not be the same thing as being under-staffed. Is that what you're saying?

A. Yes.

Q. During that period, Doctor, from July of 1980 to March of 1981, do you have any recollection of any nurse ever expressing to you any concern about the number of deaths that were occurring on the ward?

A. No. They have never approached me with that particular concern, but as you know from the other evidence, that they approached Dr. Rowe with that concern. So, he set



D-12

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up some of these little conferences in the fall of '80 but they didn't ever come to me, to my knowledge. Now, I may well have had some casual conversations with the nurses but I can't remember a specific meeting that I had to which this was addressed because I think if that had happened I probably would have done something about it and I haven't and I appreciate the work that the nurses do and if they had that sort of concern I think I would have done something about it.

Q. Do you recall during that period, Doctor, July of 1980 to March of 1981 any nurse ever making any remark to you about the number of deaths that were occurring on the ward at night?

A. No, no. Again, because I had been on duty on occasion in the evenings I was aware of the fact that there seemed to be more deaths at night than in the day-time but I had never, I don't remember a particular conversation with a nurse going into that in detail.

Q. I'm not suggesting I know of one, Doctor, I am asking you if you had a recollection?

A. No, I can't. That of course



D-13

1
2 is two years ago but I don't remember that.

3 Q. Do you in that period have
4 any recollection of any nurse ever remarking to
5 you on the number of deaths that seemed to be
6 occurring in the presence of one nursing team?

7 A. No. This is one of the
8 things that would seem I'm sure very strange to
9 an outside person but the problem is that I didn't
10 even realize that nurses worked on teams. I
11 thought they just came and went and they had
12 holidays and so on and I didn't realize that they
13 had teams at all until subsequent events. But at
14 that time during that whole period I wasn't aware
15 of the fact that they were teams that always
16 worked together.

17 Q. When did you become aware
18 of the team system, Doctor?

19 A. Well, I suppose after that
20 bad weekend in March I began to realize. The Sunday
21 of course when the police came in, they immediately
22 started looking at the whole situation and said,
23 well, here is the same team that is going along.
24 But I was not aware of that until that time.

25 Q. Okay. I just want to spend
a moment with you on the available levels of nursing



D-14

1
2 care on the ward and then I want to look at some
3 patients with you.

4 During the period from July 1980
5 to March 1981, Dr. Fowler, do you recall ever
6 having ordered constant or shared nursing care for
any patient?

7 A. I may well have ordered
8 that but I don't remember that specifically. This
9 was something that often was the arrangement more
10 likely with the resident or the cardiac fellow
11 than the staff. They usually have this sort of
12 thing sorted out at that level and I can never
13 remember a conflict with someone in which they
14 felt they needed extra nursing care and the nurses
15 said there was none available at the time. I
16 don't ever remember an episode like that during
that period.

17 Q. All right, that was my
18 next question, thank you.

19 Doctor, in what circumstances
20 would you consider it appropriate that constant or
shared nursing care be ordered for a patient?

21 A. Well, I think that this
22 would be a situation in which a patient was very
23 ill requiring a lot of close observation and requiring
24
25



D-15

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2 a lot of medications, IVs and so on. That would
3 be impossible for a nurse to care for more than
4 two or even one patient with so much work to do.
5 So, this would be the reason that we would order
6 that and of course we always have the intensive
7 care as the back up. If we feel that kind of care
8 is necessary for a patient and the nursing staff
9 are unable to have that sort of care then we
10 often can have the people in the intensive care
11 assess that patient and see if they would feel
12 that that patient would need that care.

13 Q. Or it might be I take it,
14 Doctor, that the patient in your view required the
15 kind of sophisticated monitoring, electronic
16 monitoring that simply wasn't available on the ward?

17 A. Yes, yes.

18 Q. Do you recall any occasion
19 in the period from July 1980 to March, 1981 when
20 you were unable to arrange a transfer to the ICU
21 of a patient who in your judgment should have been
22 there?

23 A. I can never remember such
24 an episode. I am fairly flexible and we often at
25 times will have discussions with nurses about
whether a patient should go down there or stay on



D-16

1
2 the ward. One of the things that is an essential,
3 if a patient is in breathing difficulties and
4 really requires a respirator, then that sort of
5 care cannot be done on the ward and we have
6 chemical tests to indicate when they are reaching
7 that stage and then the people in the intensive
8 care always accept the people.

9 Q. We have heard something,
10 Dr. Fowler, about the monitoring equipment that was
11 available on Wards 4A and B.

12 A. Yes.

13 Q. Cardiac monitors and apnea
14 monitors and so on?

15 A. Yes.

16 Q. You have previously told
17 me of a halter monitor. Do I have the name right?

18 A. Yes.

19 Q. Can you tell me what that
20 is please because it sounds rather different from
21 the kind of thing we have heard of so far?

22 A. That's a much more commonly
23 used investigative technique for people who are
24 ambulatory. This is a portable ECG tape machine
25 which the patient carries around with him for 24
hours and these are usually older children. He



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records in a little diagram what he's doing all
the time and then he brings it back and this
is read. Particularly in adults with coronary
artery disease things happen with exertion and
that sort of thing.



/EMT/ko

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However, in children we often apply this to people with arrhythmias, and occasionally children, infants, require a 24 hour monitoring and so we just hook this little machine on to the baby and have it attached to the bed. Then we can get a 24 hour - every single heart beat of course is recorded and any unusual rhythms are picked up.

Q. I gather those tapes are then analyzed by computer?

A. Yes, somewhat. They used to be done by hand but they are now computer assisted analyses.

Q. And those monitors were available on wards 4 A and B in July, 1980 to March, 1981?

A. Yes.

Q. Doctor, can we turn now to some of the 36 patients with whom you had some involvement?

A. Yes.

Q. And can I fairly say that they fall into three categories: first, those who died when you were ward chief on wards 4 A and B?

A. Yes.

Q. And those were patients in whose care and management you would have been directly involved?



1

2

A. Yes.

3

Q. Then, Doctor, there are those

4

who died during nights when you were the staff

5

cardiologist on call?

6

A. Yes.

7

Q. And you may or may not have

8

been involved in the care and management of those
patients?

9

A. Yes.

10

Q. I take it you were called when

11

they died?

12

A. Yes.

13

Q. And you were told the

14

circumstances of their dying?

15

A. Yes.

16

Q. And you would participate in

17

the discussion of cause of death and so on?

18

A. Yes.

19

Q. And then third there were

20

patients who had been referred to you from outside

21

the hospital, and again you may or may not have been

22

involved in the care and management of those patients

23

when they arrived?

24

A. When they were in-patients, yes.

25

Q. I take it you would be kept



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aware of those patients' progress?

3

A. Yes.

4

Q. And you would probably be

5

consulted about any major decisions in their course?

6

A. Yes.

7

Q. As to whether they should go

8

to surgery and things like that?

9

A. Yes.

10

Q. Can we look at the groups then

11

in the reverse order, and I recognize there may be
some overlap?

12

A. Yes.

13

Q. Because a patient may have been

14

referred to you at a time when you were the ward chief?

15

A. Yes.

16

Q. And may have got into trouble

17

on a night when you were on call?

18

A. Yes.

19

Q. And there could be a real over-

20

lap. Let's look at them in groups if we may and
start with the last first.

21

THE COMMISSIONER: I wonder if it

22

might be of assistance if you gave us the names now?

23

MR. LAMEK: Yes.

24

Q. Well, Doctor, I believe first

25



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2

the patients who were referred to you.--

3

A. Yes.

4

Q. In the hospital - tell me if I

5

have this wrong - were Paul Murphy?

6

A. Yes.

7

Q. Laurette Heyworth?

8

A. Yes.

9

Q. Richard McKeil?

10

A. Yes.

11

Q. Antonio Adamo?

12

A. I am not sure about that one,

but that may be true.

13

Q. The reason that I suggest that

14

he was, and it is no more than that, is that you

15

appear to have written the reporting letter to the
referring physician.

16

A. Yes.

17

Q. Francis Volk was a patient of

18

yours, was he not?

19

A. I was involved in his care, but

20

I don't think I was primarily - I wasn't the primary
cardiologist that was looking after him.

21

Q. Was he referred to you?

22

A. I don't really think so, but I

23

would have to look that up.

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Q. Was Janice Estrella referred to you?

A. Yes, she was. Yes, that is right because I cared for her prior to her admission to hospital, yes.

Q. What about Jordan Hines?

A. I think that he was just referred to the cardiac ward.

Q. You happened to be the ward chief?

A. And I was the ward chief at that time, but I know about him at any rate.

Q. Kristin Inwood, was she a patient referred to you?

A. I am not sure about that, but I certainly had contact with her along the way.

Q. If necessary we can look at the charts.

A. Yes.

Q. You may have written a reporting letter in any event. And finally, Justin Cook, was he merely referred to the division?

A. No, I think he was - I actually talked to the referring doctor on that weekend so he was really referred to me personally.



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Q. Those so far as I know are all
of the children who were or appear to have been
referred to you.

A. Yes.

Q. Whether or not you were
involved with their actual care in the hospital.

A. Yes.

Q. Can you think of any others of
the 36 who were referred to you?

A. It is very difficult to remember.
I could look that up but I can't right at the moment
think of any others.

Q. Okay. And then there were
children who died at times when you were the
cardiologist on call?

A. Yes.

Q. Either at night or on the week-
end?

A. Yes.

Q. And there I believe the children
were Brian Gage who died the morning of September 25th?

A. Yes.

Q. Richard McKeil who we have
already mentioned?

A. Yes.



1

2

Q. D'Arcy McDonald?

3

A. Yes.

4

Q. Charlon Gardner?

5

A. Yes.

6

Q. And Justin Cook?

7

A. Yes.

8

Q. So we found some areas of overlap there.

9

A. Yes.

10

Q. And then those children who died

11

while you were ward chief, and those as I recall it

12

were September of 1980, Heyworth and Gage, both of

13

whom we have already mentioned?

14

A. Yes.

15

Q. In November, Matthew Lutes?

16

A. Yes.

17

Q. Do you remember that name?

18

A. Yes.

19

Q. And then of course there were nine on the ward?

20

A. Yes.

21

Q. And Pacsai in the ICU from the ward?

22

A. Yes.

23

Q. Now, Doctor, I don't intend to

24

25



1
2 take you through the hospital records for these
3 patients. I hope we can shorten it considerably in
4 most cases.

5 A. Yes.

6 Q. You have read the evidence of
7 Dr. Rowe I understand?

8 A. Yes.

9 Q. And you recall that he gave
10 evidence about each of the 36 patients with whom we
11 are concerned?

12 A. Yes.

13 Q. What I propose to do, Doctor,
14 is to remind you of Dr. Rowe's evidence with respect
15 to each of the children with whom you were concerned.

16 A. Yes.

17 Q. And to ask whether you agree or
18 disagree with his conclusion, whether you have anything
19 to add to it.

20 A. Yes.

21 Q. And, Dr. Fowler, if you feel you
22 need to look at the chart, then by all means tell me.

23 A. Yes.

24 Q. And feel absolutely free to get
25 whatever information you require.

Paul Murphy is the first in time I



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2

believe of the children?

3

A. Yes.

4

Q. With whom you were concerned.

5

This is a group that I think were your patients
referred to you in the hospital?

6

A. Yes.

7

8

Q. Dr. Rowe has said, and the
evidence, Mr. Commissioner, is found in Volume 14,
at pages 2355 to 2356.

9

10

Dr. Rowe has given evidence that in
his medical judgment the death of Paul Murphy was
caused by his clinical condition and the manner of
his dying was consistent with his having succumbed
to long standing congestive heart failure.

11

12

13

14

A. Yes.

15

16

Q. Is that an opinion with which
you agree, Doctor?

17

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19

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A. Yes. I think the only thing
that I would add that wasn't brought up in that
evidence was the fact the he also had severe - or
not severe but he had brain disease as well. He
was somewhat retarded.

21

22

Q. Yes?

23

24

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A. And had had in infancy what we
call hydrocephalus which had become arrested, and I



1
2 think that there are neurological problems in
3 addition to all the other things that Dr. Rowe was
4 discussing at this time.

5 Q. Yes?

6 A. So that I think that this is
7 the only addition to that. But it is another thing
8 that can cause vomiting and another sort of factor
9 that would lead to his death.

10 Q. Thank you for that, Doctor.

11 Dr. Rowe also said that in two respects
12 only (that is to say in the suddenness of the onset
13 of critical symptoms and in the appearance of a major
14 arrhythmia) which Dr. Rowe presumed to have occurred --

15 A. Yes.

16 Q. In those two respects he said
17 the manner of Paul Murphy's dying was consistent
18 with digoxin intoxication, and that, Mr. Commissioner,
19 is found at pages 2354 to 55 of Volume 14.

20 Is that too an opinion with which you
21 agree, Doctor?

22 A. Yes. I can't remember about
23 the digoxin levels and so on with him, but I guess
24 we would have to go along with the fact that that is
25 a possibility in this situation. However, as you
are well aware, he has so many other things that he



1
2 might - and also I think it is important again
3 because of the brain problem is that he was having
4 episodes of sort of confusion and this sort of thing,
5 all of which suggested, and I was quite fairly sure,
6 as you know, from my notes to the referring doctor,
7 that I felt that he was getting very close to the end
8 because of all the things that were going on.

9 Q. Doctor, I should perhaps make
10 it absolutely clear that when Dr. Rowe was asked
11 whether the manner of dying and the critical symptoms,
12 terminal events, were consistent either with the
13 clinical condition or with digoxin intoxication, he
14 was saying no more than that. Yes, they are
15 consistent.

16 A. Yes.

17 Q. Not necessarily indicative of
18 it.

19 A. Yes.

20 Q. Indeed in many cases as you know
21 he was at pains to say in his view the overwhelmingly
22 probable cause was the clinical condition.

23 A. Yes. And I think this would be -
24 this patient would be one of that type.

25 Q. Next was Laurette Heyworth, and
again in Volume 14, Mr. Commissioner, page 2376 to



1
2 2377, Dr. Rowe gave us his opinion that the terminal
3 events described in this girl's chart were consistent
4 with her clinical condition, and that in his opinion
5 the probable cause of her death was chronic heart
6 failure.

7 Again is that an opinion with which you
8 would agree?

9 A. Yes, I would agree with that.

10 And here again as you know, from my letters that I
11 felt she also was getting towards the end of her life.

12 Q. Yes?

13 A. Because of all her problems.

14 Q. And she had many and serious
15 problems?

16 A. Yes.

17 Q. Not all cardiac problems?

18 A. Yes.

19 Q. Dr. Rowe also said in two
20 respects only, that is to say in the suddenness of
21 the onset of terminal events and in the finding of
22 ectopic heart beats, that in those two respects her
23 death was consistent with digoxin intoxication.

24 A. Yes.

25 Q. Again is that an opinion you
would share?



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A. Yes, but here again we are

dealing with somebody with fairly serious brain

disease, and it is well known that, you know,

pathology in the brain can precipitate extra beats.

Q. Yes?

A. And we would have to say that

that is consistent, that it could be digoxin.

Q. No more than that?

A. And that is all.

Q. The next child in terms of time

was Richard McKeil.

A. Yes.

Q. And here, at Volume 13, Mr.

Commissioner, pages 2298 to 2299, Dr. Rowe said that

he considered the digoxin toxicity could conceivably

have been a contributing factor in this death.

You may remember this was a child on

the day - on the morning --

A. Yes.

Q. The day on which he died had a

digoxin level of greater than 4.7.

A. Yes, and there was a problem

during his whole course of trying to get --

Q. To fix the level?

A. -- a level that would not cause



1
2 toxicity.

3 Q. Exactly right. And Dr. Rowe
4 said he thought digoxin toxicity could conceivably
5 have been a contributing factor in that death but
6 he didn't think it likely.

7 Again do you agree?

8 A. Yes, I would agree with that.

9 Q. He said that the terminal events
10 this is at page 2262 to 2263, sir - the terminal events
11 and their onset and their course were consistent with
12 digoxin intoxication and they were also consistent
13 he says with the patient's anatomical and clinical
14 condition.

15 He believed that the death was caused
16 by the patient's cardiac difficulties.

17 A. Yes.

18 Q. Do you agree with those
19 observations, Doctor?

20 A. Yes, I agree with that.

21 MR. LAMEK: Mr. Commissioner, is this
22 the perfect time to take a morning break?

23 THE COMMISSIONER: Yes, all right.
24 Twenty minutes then.

25 --- Short recess



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--- On resuming

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THE COMMISSIONER: Yes, Mr. Lamek?

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MR. LAMEK: Thank you, sir.

5

Q. Dr. Fowler, I think we just referred to Richard McKeil?

6

A. Yes.

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Q. You have told me of your agreement with the opinions expressed by Dr. Rowe about that child.

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With respect to Antonio Adamo, and this Mr. Commissioner is found in Volume 13 at pages 2319 to 2320, it was Dr. Rowe's opinion having viewed the chart that the nature of the terminal events described in the chart, their onset and their course, were consistent in his opinion with the child's anatomical and clinical condition.

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17

I take it you agree with that do you, Dr. Fowler?

18

A. Yes.

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Q. He said that they were also, the events, the onset and their course, consistent with digoxin intoxication.

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A. Yes.

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Q. Is that a view with which you agree, Doctor?

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A. Yes.

Q. Is there anything you want to add with respect to the Adamo death?

A. No, I don't.

Q. With respect to Francis Volk, and there, Mr. Commissioner, the reference is to Volume 14, pages 2416 to 2417, there was nothing in this record, Dr. Fowler, that caused Dr. Rowe any concern about any possible digoxin involvement in this child's death.

A. Yes.

Q. Do you agree with that?

A. Yes.

Q. And at page 2412 he said that he believed the death of Francis Volk to be attributable to a combination of acute bronchopneumonia and congestive heart failure as set out in the final autopsy report. And is that an opinion that you share?

A. Yes, I agree.

Q. Next in terms of time of this block of patients is Janice Estrella, and Dr. Rowe's evidence there, Mr. Commissioner, is found at Volume 16, and I am referring particularly to evidence that he gave at pages 2700 and 2701.

With respect to Janice Estrella,



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Dr. Rowe, as you know, Dr. Fowler, from having read his evidence.

A. Yes.

Q. Dr. Rowe considered that her terminal events, their sudden onset and their rapid irreversible course, were consistent with her anatomical and clinical condition, and he said they were also consistent with digoxin intoxication.

Would you agree with those conclusions?

A. Yes. I think that the rider, of course, in this particular case is the whole problem of the digoxin.

Q. Yes?

A. And how it was obtained and this sort of thing which you have had a long time on and I think that puts this perhaps a little bit outside some of the other cases because we can't be sure I think about the significance of the levels of digoxin. But I would certainly agree with that.

Q. Yes, I think that is entirely right, Dr. Fowler, and I will be saying something about that with you, but in terms of the clinical condition disclosed in the record and the manner of dying disclosed in the hospital record.

A. Yes.



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Q. Those are Dr. Rowe's views, and
I take it you agree with them?

A. Yes.

Q. Now having in mind the postmortem
digoxin levels that were recorded on samples taken
from this child, Dr. Rowe also said, and this was in
Volume 18, at page 3275, he also said that he
considered it possible, subject to the debate between
pharmacologists as to the meaning of postmortem
digoxin levels --

A. Yes.

Q. -- he considered it possible
that Estrella's death was caused by digoxin
intoxication.

A. Yes.

Q. And would you agree with that
formulation?

A. Yes, I think I would certainly
have to go along with his proviso that this depends
on some - the pharmacologists coming to some
conclusion as to whether those levels are levels
that we can make anything out of at all.

Q. What do they mean?

A. Yes, what do they mean.

Q. Which I take it, Dr. Fowler,



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that if the pharmacological opinion at the end of the day should be that those levels mean what in March of 1981 they were thought to mean --

A. Yes.

Q. -- then would it be your opinion that Estrella's death was caused by digoxin intoxication?

A. Yes. I think I would have to agree, but this depends on what their - and I suspect that it is going to be very difficult for somebody to really explain those levels at all.

Q. Yes.

A. At this time, unless there is some of that blood left that can be used for new types of investigation to see it.

Q. Yes. I want to come back later to the question of those postmortem digoxin levels.

A. Yes.

Q. But can we for the moment just move along with the medical opinion as to the cause of death and the consistency of certain events with certain possible causes?

The next child is Jordan Hines. And Dr. Rowe has said in Volume 17, page 2888, that at the time of Jordan Hines' death he was not sure what the



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cause of death was.

Do you share that puzzlement at the time of death?

A. Yes. As you know I was not on duty at the time of his death.

Q. Yes.

A. I saw him when he came in but Dr. Vera Rose was actually on duty at the time of his death. But I would share those views.

Q. I don't think I need to put the chart in front of you, Doctor, unless you would feel better if I did, but on page 1 of the hospital record - that, Mr. Commissioner, is Exhibit 103 - is a letter from you to Dr. Dworak in Scarborough.

A. Yes.

Q. Reporting upon the death of Jordan Hines.

A. Yes.

Q. You may recall that in the course of that letter you said:

"He presented with arrhythmias and after preliminary investigation, suddenly had a cardiac arrest and could not be resuscitated. I have discussed the case with the



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"pathologist and we have not got a satisfactory diagnosis yet. Anatomically the heart was completely normal. There were many eosinophils throughout many organs which is not explained. There was a fresh hemorrhage around the base of the brain and the brain is being cut in the near future.

I am sorry about the death of this infant and we will have to defer the final diagnosis until the postmortem examination is complete."

A. Yes.

Q. I take it there was some - I use mystery in a non-pejorative sense --

A. Yes.

Q. I take it mystery at the time about just what it was that caused Jordan Hines' death?

A. Yes.

Q. Dr. Rowe, and this is on page 2893 of Volume 17, sir, Dr. Rowe says that it is not his view that the probable cause of death was sudden infant death syndrome.



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He says in that regard that he was significantly influenced by Dr. Bain's view as to that being likely cause of death.

A. Yes.

Q. Do you agree with his current view the likely cause of death of Joran Hines was sudden infant death syndrome?

A. I think this is quite likely, and I think Dr. Bain's opinion also is based on the final pathology as reported by I believe it is Dr. Becker.

Q. Yes?

A. I think that was the pathologist, and I think that was the final thing that Dr. Bain felt was very suggestive, and then in retrospect, of course, looking over the history and so on this would fit in with - as the cause.

Q. Perhaps I should fairly ask you to have the chart before you, Dr. Fowler.

Mr. Commissioner, could the Registrar put Exhibit 103 before Dr. Fowler, please?

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Dr. Fowler, you have referred to the autopsy report; I'm sorry, you don't have it yet.

A. Thank you.

Q. Now, on page 28 of that record, Doctor, is what is called the "Preliminary Autopsy Report".

A. Yes.

Q. And in respect to what I am interested, and I don't know if there is any change in this, the report is by Dr. Becker and we have heard that Dr. Becker is a recognized authority on the Pathology of Sudden Infant Death Syndrome. I take it that is an assessment with which you would agree?

A. Yes.

Q. On the first page of the preliminary autopsy report, in the final paragraph, Dr. Becker describes certain findings made on autopsy.

A. Yes.

Q. And half way through the paragraph says:

"This is the finding seen in SIDS." Having referred to brown fat, and the brain showing gliosis and so on:

"Other findings which support a



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"diagnosis of a missed-SIDS are the persistent extra-medullary hematopoiesis, the persistence of brown fat, and the thickening of the pulmonary arterials. This pathologic evidence in conjunction with the clinical history, makes the diagnosis of a missed-SIDS a possibility. However, this does not explain the arrhythmias and further conclusions will have to await examination of the conducting system."

Now, so far as we know, Dr. Fowler, the examination of the conducting system did not proceed, I gather that is a monumental task for a pathologist?

A. Yes, it is very difficult.

Q. Do I read that fairly that Dr. Becker, although he found many of the pathologic signs of Sudden Infant Death Syndrome, placed it no higher than a possibility as the cause of death?

A. Yes.

Q. And appears to have been concerned that the accompanying arrhythmias were perhaps inconsistent with that diagnosis?



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A. Yes, this seems to have been
his opinion at that time.

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Q. We have heard, Dr. Fowler, that
there are in the literature references to occasional
findings that in Sudden Infant Death Syndrom cases
arrhythmias may accompany, or perhaps even cause the
death?

8

A. Yes.

9

Q. You are familiar with those
references in the literature?

10

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A. Yes.

12

Q. Are you aware of the particular
nature of the arrhythmias that occurred as part of
Jordan Hines' critical symptoms terminal events?

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A. As I remember it, he had a
variation of rate, or rapid heart rate sometimes and
other times a slow heart rate and going back and
forth from these.

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Q. Do you have any knowledge of
the way in which those arrhythmias, dysrhythmias,
variations, were reflected in the EKG tracings?

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A. Well, I think there are electro-
cardiograms in the chart that show what some of them
looked like.

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Q. If you could help us it would

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be useful, because as I recall it Dr. Rowe was not able to tell us what particular features of the electrocardiogram reflected the arrhythmias that were recorded, or observed?

A. Is there no electrocardiogram in the chart?

Q In the second-last page in the record here, Dr. Fowler, is a couple of snips of what looks to be a strip.

THE COMMISSIONER: Is there something in here, have I got this wrong, somewhere around page

THE WITNESS: Page 87.

THE COMMISSIONER: No, I am thinking - page 12.

MR. LAMEK: That is page 87, there is certainly those, Dr. Fowler. As the Commissioner points out there are some very odd looking tracings at pages 11, 12 and 13, and there are some more strips on page 14, I am sorry, that is page 12.

THE WITNESS: Yes, I see page 12 is the electrocardiogram sent in with the child.

MR. LAMEK: Q Yes.

A. Read by Dr. Sanz.

Q Yes, and a notation: "During bradycardia, March 5".



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A. Yes.

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THE COMMISSIONER: There are several
page 12's in my book.

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MR. LAMEK: I suspect, Mr. Commissioner,
that the preceding three pages were all part of one
foldout in the original chart.

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THE COMMISSIONER: Yes, all right.

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MR. LAMEK: Q Dr. Fowler, I have no
doubt that Mr. Tobias, who acts for Mr. and Mrs. Hines,
may have more to ask you on this point.

10

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A. Yes.

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Q May I ask you this. Do you
know whether the query raised by Dr. Becker's autopsy
report as to the explanation for the arrhythmias was
ever satisfactorily answered?

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A. Well, I haven't looked into this
in detail, but if you tell me that the conduction
system was never analyzed by the pathologists, in
which they take many, many sections of it all the
way down on and look at it, then we can say that we
haven't been able to prove something wrong with the
conduction system. Certainly this electrocardiogram
is somewhat abnormal in which you are switching from
a rapid to a slow heart rate, and this is consistent
I think perhaps with something like SIDS but I am not



F.6

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2 sure, because this is, as you know, this is an unusual
3 accompaniment of Sudden Infant Death. I think Dr. Rowe,
4 one of the things that is often suggested as one of
5 the ECG findings of missed-SIDS, is a long QT interval.
6 It was thought that maybe this was the reason of some
7 of these babies dying, and this child doesn't seem to
8 have that certainly on this electrocardiogram that
9 we are seeing now on page 12.

10 Q Indeed, Doctor, from the
11 references in the literature, is it not fair that on
12 the apparently unusual occasions where EKG tracings
13 do indicate that it is a tracing of a particular
14 and recognizable nature, as you say a prolongation of
15 the QT interval?

16 A. That is a potential, that is
17 the abnormality at rest. But then when they get the
18 arrhythmia it might well be a ventricular fibrillation
19 type of thing is a terminal event and that is started
20 by the long Q-T interval.

21 Q Jordan Hines was another of
22 the babies of whom Dr. Rowe said that subject to the
23 views of the pharmacologist, it was possible that
24 digoxin intoxication was the cause of death. Is that
25 a view with which you agree?

A. Yes, I think this is - again I



F.7

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2 would agree with that, but again I think there are
3 some questions about the actual digoxin levels and
4 that sort of thing, but I would have to agree that it
5 is conceivable that that might have been the cause
6 of death.

7 Q Dr. Rowe said the same thing
8 of Kristin Inwood and those references, Mr.
9 Commissioner, are in Volume 18, page 3275: again
10 subject to the views of the pharmacologist as to the
11 interpretation of levels that it was possible that
12 digoxin intoxication caused the death of Kristin Inwood.
Again, you agree with that, with that proviso?

13 A Yes.

14 Q He also said at pages 3116 to
15 3117 of Volume 18, he also said:

16 "Her terminal events and the manner
17 of their onset and their rapid course
18 were consistent with her clinical
condition."

19 And with one small qualification with respect to
20 tachycardia that occurred, he said:

21 "They were also consistent with
22 digoxin intoxication."

23 Would you agree with those?

24 A Yes, that is true.
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Q Justin Cook, Dr. Rowe said,
Volume 18, page 3250. Dr. Rowe said:

"Justin Cook died in a way that
was a very classical, very severe
blue spell from which he did not
emerge."

He said:

"That was the picture that was
presented at death. That his death
and the manner of his dying were
consistent with that ... ",
and if you disregard other things, would you agree
with that view?

A Yes, I can agree, I certainly
agree 100 per cent with that.

Q He then gave us his opinion,
this is at page 3274-3275 of Volume 18, he gave as
his opinion:

"The cause of Justin Cook's death
was an overdose of digoxin."

And he said:

"He believes that Cook was
unquestionably a child whose death
was caused by digoxin intoxication."

Would you agree with that opinion?



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A. Well, I suppose I have to agree.

Here again I think that in his case, unlike many others, he didn't have digoxin prescribed at all at any time, and in actual fact digoxin is contra-indicated in somebody who has that malformation.

Q. Yes.

A. And if you actually found digoxin in high levels I think that you would have to agree that that could very likely be the cause of death in him.

Q. When did you learn of Justin Cook's death, Dr. Fowler, you were the ward chief at the time?

A. They phoned me just after the resuscitation efforts were unsuccessful, and they phoned me, you know, very shortly after his death.

Q. Is that Dr. Jedeikin who called you?

A. Yes.

Q. And we know that the child was pronounced dead at 4:56 in the morning so about 5 o'clock you were called?

A. Yes.

Q. Did you at that stage have any information about digoxin levels, I take it you did not?



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A. No.

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Q. Did you at that point when you

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were called by Jedeikin have any suspicion as to the
cause of Justin Cook's death?

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A. No. By this time I was very

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suspicious that there might have been something
sinister going on and at that time I told him that

8

I was going to come down and view the situation. I

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also phoned Dr. Rowe, and Dr. Carver, and Dr. Carver

10

is a Professor of Paediatrics and he suggested that

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we get postmortem blood for various sorts of a toxic

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screen if you like, and this was done by Dr. Jedeikin

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while I was on my way down.

14

Q. Did Dr. Jedeikin tell you, in

15

the course of the telephone call early in the morning,

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that a blood sample had already been drawn in the

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course of the resuscitation for digoxin assay?

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A. I can't remember whether he

19

mentioned that.

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Q. Did you at some time learn that

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a sample had been drawn before the baby was pronounced
dead?

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A. Yes, I realize now this was done.

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Q. Do you recall when you became

24

aware of it?

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A. No.

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Q And was it you, Dr. Fowler, who informed the coroner of Cook's death?

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A. Yes.

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Q When did you do that?

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A. I think I did that very shortly after I was notified of that.

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Q And before you had received any information about digoxin levels?

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A. I think so. I can't be 100 per cent sure, but I think that we notified the coroner fairly shortly after I knew that the child had died, and I think that was the reason that the police then moved in to the Hospital. Well, no, in actual fact they were coming in first thing in the morning anyway because of the information about Miller.

16

Q About Miller?

17

A. Yes.

18

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Q What was it that prompted you to notify the coroner of Justin Cook's death before the cause of death had been established?

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A. Well, this was because of the events the previous night with the recognition of the fact that Miller had high levels in her serum.

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Q Doctor, can we move now to the



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group of deaths which occurred either at nighttimes
or on weekends when you were the staff cardiologist
on call?

A. Yes.

Q. I want to just show you first
what I understand to be the cardiologists' on-call
roster for the period from May of 1980 until May of
1981. Do you recognize that as being the night duty
roster for cardiologists for that period?

A. Well, it probably is. It
certainly is the format that it appears and I assume
it is.

Q. I tell you that if it isn't we
had better speak to Mr. Roland or Mr. Ortved because
they so represented it to me.

A. Yes.

MR. LAMEK: May that be the next
exhibit, please, Mr. Commissioner?

THE COMMISSIONER: I don't know if
Mr. Ortved is concerned about this attack upon his
honour.

MR. LAMEK: No, I am citing that as an
indication of its reliability.

THE COMMISSIONER: Oh, all right.

MR. ROLAND: I am sure it is reliable
although I have never seen it before.



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THE COMMISSIONER: Well, since Mr. Ortved is otherwise engaged we can always blame him for it. However, Mr. Ortved, did you produce this document?

MR. ORTVED: Yes, I did.

THE COMMISSIONER: Then I take it it is accepted to be correct?

MR. LAMEK: Has it been given a number, Mr. Commissioner?

THE COMMISSIONER: 177.

--- EXHIBIT NO. 177: Division of Cardiology - Staff Night Schedule.

MR. ORTVED: You know, since it has come up, maybe I should just indicate I am given to understand that this is the rotation and it may vary to the extent that one or two doctors might have agreed between each other to switch nights and that may have not found itself onto this, but other than that it is an appropriate document.

THE COMMISSIONER: What are the blanks that are on here, what do they indicate, do they mean that no one is on duty?

MR. LAMEK: I think you will find, sir, that they occur on the weekends and that one name covers the three.

THE COMMISSIONER: Oh, I see, all right.



F.14

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2 MR. LAMEK: On some pages the three
3 days of the weekend are bracketed together, but not
4 on the first page. I am sure Mr. Ortved is right,
5 and indeed I propose to ask Dr. Fowler about that
6 very thing.

7 Q Dr. Fowler, I assume there may
8 have been assignment switches from time to time from
9 those that appear on this roster?

10 A Yes, this is possible.

11 Q People get sick or they have
12 social commitments and that sort of thing?

13 A Yes.

14 Q And they arrange to change
15 their duties I take it?

16 A Yes.

17 Q And if that becomes relevant in
18 any case and it applies to you perhaps you will be
19 good enough to tell me if you remember it?

20 A Yes.

21 Q I want to be sure that I under-
22 stand the roster correctly, Dr. Fowler. I am correct,
23 am I, with respect to the one name that appears
24 against the three days of the weekend; for example,
25 looking down the left-hand side, Friday, May 9th,
Saturday, May 10th, and Sunday, May 11th. The one
name, Freedom, appears against the Saturday?



F.15

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A. Yes.

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Q. Do I understand that to mean that he was on call for that weekend?

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A. Yes. We usually take the Bellboy at 9 o'clock Friday morning and give it over at 9 o'clock Monday morning.

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Q. Like quite a ceremony, the passing of the Bellboy?

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A. Yes.

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Q. Now, the first occasion upon which your name appears there I think is on Monday, May 12th, in the left-hand column of the first page. Now do I understand that to mean that from the end of the normal duty day on the Monday, May 12th, you were on call until the beginning of the normal duty day on Tuesday the 13th?

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A. Yes, that is correct.

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Q. And therefore if a death occurred at let us say 4 o'clock in the morning of May 13th, and I wanted to know who was on call, I would look to see who was on call on May the 12th?

20

21

A. Yes, that is correct.

22

THE COMMISSIONER: And what are the hours again, did you say, from when to when?

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THE WITNESS: From say 5 o'clock in



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the afternoon until 8:30 in the morning the following day.

THE COMMISSIONER: Except on the weekends when it appears to be from 9 o'clock on Friday morning to 9 o'clock Monday morning?

THE WITNESS: Yes.

MR. LAMEK: Q Doctor, am I right in thinking that weekend on call in effect starts at 5 o'clock, Friday afternoon?

A. Yes, in effect.

Q It is just that he is on and equipped for that occasion?

A. Yes.

Q First thing Friday morning?

A. Yes, that is correct, but the people in the wards who are doing their normal duty would do it until they leave on Friday evening.

Q Yes. Now, Dr. Fowler, Brian Gage died in the early hours of September the 25th, and that I believe is on the third page of this document. Am I right in thinking that you were the cardiologist on call, your name appears against Wednesday, September the 24th?

A. Yes.

Q And therefore in the early



F.17

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hours of Thursday the 25th, Dr. Fowler, will be the cardiologist to call?

4

A. Yes, that is right.

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7

Q. And do you recall whether you were in fact on call that night? If it is of any help to you I can tell you that Dr. Jedeikin in the chart recorded that he called you.

8

9

A. Yes. Well, that is the 25th?

10

11

Q. The evening of the 24th to the 25th of September?

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13

A. Yes, I was on call definitely there.

14

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Q. And you were notified I believe by Dr. Jedeikin that Brian Gage had died?

16

17

A. Yes.

18

19

Q. Did you go to the Hospital?

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21

A. No, I did not.

22

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Q. Do you recall what conversation you had with Dr. Jedeikin about that child's death?

A. I don't remember the substance of that conversation at all, except that he had, I knew about the patient because he had been transferred from some little time before that to the ward, so I was aware of the patient and he explained what had happened and I felt that this was a death related to his disease and so I didn't feel that it was necessary for me to proceed with anything further.



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Q. Now, the next in point of time was Richard McKeil to whom we have already referred. He died at about 4:30 in the morning of October 15.

A. Yes.

Q. And the roster appears to record that you were on call the night of Tuesday, the 14th of October, which would include the morning of Wednesday the 15th?

A. Yes.

Q. And in fact the chart again records that you were notified of the death of Richard McKeil. Do you recall that, Doctor?

A. I must have been notified about that.

Q. I believe it was by Dr. Heilbut?

A. Yes. Again, I felt that this was a situation that was related to his problems, so, nothing further was done about that.

Q. Fine. Do you have any particular recollection of what Dr. Heilbut told you?

A. No, I don't remember the details of that.

Q. And chronologically, the next was D'Arcy MacDonald, who died again at about 4:30 in the morning on Saturday, December 13th. From the



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next page, which appears that on that weekend from the 12th, 13th and 14th, you were on call with Dr. Rowe?

A. Yes.

Q. Can you tell me what that means when there are two physicians on call?

A. Well, this means that I am first call and I look after everything of the usual call except for catheterizations and I don't do catheterizations any more. So, if I see a baby that I feel requires a catheterization then I have to phone Dr. Rowe and he comes in and does that while I continue to do all the other clinical work.

Q. Thank you.

Mr. Commissioner, could the Registrar let the witness have D'Arcy MacDonald's chart, please, Exhibit 71.

Now, Dr. Fowler, if you could turn with me to page 58 of the record. Page 58 contains at the top a note by Dr. Mountstephen and then below it a note apparently by the 4B resident on call. At the bottom of the page there is a signature which I'm afraid I cannot read. I wonder if you recognize it and could help me?

A. No, I'm sorry, I can't help you.

Q. Obviously a well-trained young



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physician, he's got an illegible signature.

A. Yes.

Q. But half way through that note,
just before the differential diagnosis, the impression,
there is a statement:

"Resuscitation started with nurses
and 25 called. Dr. Fowler notified.
Parents notified."

Do you recall receiving a call about
the arrest of D'Arcy MacDonald in the early morning
of the 13th of December?

A. I'm sure that I must have been
called but I don't remember any of the details of that
at all.

Q. All right. I am directing your
attention to what then follows, the writer's impression
as he calls it with three queries:

"Vagal reflex, arrhythmias, dig.
toxicity."

And then one at the bottom: "Poor
conduction system", which I can't read the next part.

MR. ORTVED: "Associated with heart
defect".

MR. LAMEK: "Associated with heart
defect." I am grateful to Mr. Ortved.



G.4

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Q Do you recall any conversation
in the course of that telephone call about the
impressions that are there noted by the resident?

A No, I don't remember that at all.

Q Do you recall any conversations
subsequently with that resident or with Dr. Mountstephen
as to those impressions there noted?

A No, I don't remember discussing
that with them.

Q Now, once again, Dr. Fowler,
the duty roster shows that you were on call the night
of March 17th, 1981. As well as being the ward chief
that month, you also had to take your turn on call
as well I take it?

A Yes.

Q That's two pages on in the
roster. At the top of the second column, Tuesday,
March 17th, Fowler and then in parentheses (Izukawa).

A Yes.

Q Now, Charlon Gardner died at
4:30 the following morning and they tell you that the
chart records that you were called about that death.
Do you have any recollection about that, Dr. Fowler?

A No, I don't remember that.

Q So, I take it therefore you have
no recollection of what you may have been told?



G.5

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A. No.

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Q. Did you go to the Hospital?

4

A. I don't believe I did.

5

Q. And then finally you were

6

scheduled to be on call the night of Saturday, March

7

21, which was the night of course that Justin Cook

8

died and that night, as we have already established,

9

you were called by Dr. Jedeikin about the Cook death?

A. Yes.

10

Q. Now, the five patients, Doctor,

11

in this category who died at night when you were the

12

on-call cardiologist, that is to say, Gage, McKeil,

13

MacDonald, Gardner and Cook, we have already referred

14

to Dr. Rowe's evidence about the McKeil and Cook.

A. Yes.

15

Q. I would like to put to you in the

16

same way his evidence and opinion as to the other

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three and to invite your agreement, disagreement or

18

comment on it.

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With respect to Brian Gage, Dr. Rowe

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said at Volume 13, page 2213, he said that the terminal

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events and their onset and course were consistent with

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digoxin intoxication, but he said at page 2233, that

23

he doubted that digoxin had anything to do with this

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child's death. Do you agree with that?

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G.6

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A. Yes, I would agree.

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Q. Is there anything that you want

4

to add to that?

5

A. No.

6

Q. All right. On D'Arcy MacDonald,

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Volume 14, pages 2505 to 2506, Dr. Rowe has said that

8

on his review of this child's chart he found no reason
to suspect that the death was caused by anything

9

other than his anatomical and clinical condition. Do

10

you agree with that?

11

A. Yes. And he has many things

12

wrong.

13

Q. Yes.

14

A. Including infection and defect

and Down's Syndrome and so on.

15

Q. Yes. And as I understood

16

Dr. Rowe looking at the totality of the child's

17

condition he was satisfied that he didn't have to

18

look elsewhere for a cause of death?

19

A. Yes.

20

Q. But he also said, notwithstanding

21

that, that the terminal events and the manner of their
onset and their course were consistent with digoxin

22

intoxication. Do you agree with that also?

23

A. Yes.

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Q Indeed, it appears to have occurred to the resident who was present at the time of death as a possibility?

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A. Yes.

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Q With respect to Charlon Gardner, Volume 18, pages 3182 to 3183, Dr. Rowe agreed there that the terminal events, and they included among other things AV block, bradycardia, rhythm changes, arrhythmias and so on. He agreed that those terminal events were consistent with digoxin intoxication but he also said that those matters and events and symptoms were normal in light of this patient's clinical condition. Do you accept those views?

14

A. Yes, I agree with that.

15

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17

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Q Now then, Doctor, we come to the third class of deaths, those that occurred while you were ward chief. These were the ones where you were involved in the day-to-day care and management of the patients.

19

A. Yes.

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Q Let me show to you now what I understand to be the duty roster for ward chiefs for the period with which we are concerned, that is, from June of 1980 until June of 1981, and ask if you so recognize that?



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A. Yes.

MR. LAMEK: Thank you. May that be the next exhibit, Mr. Commissioner.

THE COMMISSIONER: Exhibit 178.

--- EXHIBIT NO. 178: Duty Roster for Ward Chiefs for the period: June of 1980 until June of 1981.

MR. LAMEK: Q. While I'm about the exercise of handing things around, Dr. Fowler, let me show you another document which I understand to be the on-call roster for the cardiology fellows for July of 1980 until I believe it is May of 1981. Do you recognize that?

A. Yes, this looks like it.

MR. LAMEK: All right, thank you.

THE COMMISSIONER: Exhibit 179.

MR. LAMEK: Thank you, sir.

--- EXHIBIT NO. 179: On-Call Roster for the Cardiology Fellows for the period: July of 1980 until May of 1981.

MR. LAMEK: Q. Now, Doctor, going back to the ward chiefs' rotation. It appears that in the period that concerns us you were ward chief on Wards 4A and B for the last week of August, August 25 to 29?

A. Yes.



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Q. And then going over to the next sheet, in September, the month of September, for the month of November.

A. Yes.

Q. And then for the month of March of 1981?

A. Yes.

Q. And did you indeed serve as ward chief in accordance with the roster?

A. Yes. There is only one. I was reviewing a chart a couple of nights ago and the first few days of March, I'm not quite sure why I wasn't there, but I think Dr. Rowe was the ward chief during a few days but I'm not sure, but otherwise that is entirely correct.

Q. Fine, thanks. Well, when we get to that we may be able to identify the deaths with which you were not concerned as ward chief?

A. Yes.

Q. Now, in the first period, August 25 to 29, there were no deaths on the ward?

A. No.

Q. You had a death-free spell as ward chief there. In September Laurette Heyworth and then at the end of the month Gage died?



G.10

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A. Yes.

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Q. And we have already discussed

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those children.

5

A. Yes.

6

Q. In November, Matthew Lutes died

7

on November 17th in the very early hours of the

8

morning. He had been on the ward since November 12th,

9

and I take it therefore throughout his stay had been
under your care?

10

A. Yes.

11

Q. Do I have that correctly,

12

Dr. Fowler?

13

A. Yes, that is correct.

14

Q. Now, Dr. Rowe said of this baby,

15

and the evidence is found at Volume 14, page 2454,

16

Dr. Rowe said of Matthew Lutes, that he regarded the

17

time and manner of his death as consistent both with

18

his clinical condition and with digoxin intoxication,

19

and from your knowledge of this child and his condition,

20

Doctor, and the events surrounding his death, do you

21

agree with that assessment or is there anything that

22

you want to add to it?

23

A. No, I think that this is correct.

24

He had, in addition to the other things, coarctation

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of the aorta which I think wasn't recognized during



G.11

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2 life and which would add another strain on his heart.
3 So that I think he could well have succumbed due to
4 his heart defect just as well as he might have as a
5 result of intoxication of dig.

6 Q Now, Doctor, you have told us
7 that you were aware during what was called the
8 epidemic period of the number of deaths on the ward
9 in July and August and through the fall and in
10 December. On your rotations as ward chief in August,
11 September and November, it seems that you got off
12 pretty lightly with very few deaths. I guess you more
13 than made up for it in March of 1981. You were ward
14 chief in that month, were you not?

15 A Yes, that is correct.

16 Q And in that month there were nine
17 deaths on the ward, those of David Leith on March 6th,
18 Colleen Warner, March 7th, Jordan Hines, March 8th,
19 Barbara Gionas, March the 9th, Michelle Manojlovich on
20 March 12th, Kristin Inwood on the 13th, Charlon
21 Gardner on the 18th, Allana Miller on the 21st, and
22 Justin Cook on the 22nd, plus of course Kevin Pacsai
23 who made it to the ICU on March the 12th but died
24 within a few hours after his transfer.

25 Now, I have already asked you about
Hines, Inwood, Gardner and Cook, and I want to put to
you Dr. Rowe's bottom line opinion about the other



G.12

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six if I may and again in fact your agreement,

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disagreement or comment.

4

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With David Leith there was I understand the equivalent of a 'do not resuscitate' order in effect?

6

A. Yes.

7

8

Q. The order was that he was not to be ventilated?

9

A. Yes.

10

11

Q. And Dr. Rowe told us that that was essentially the equivalent of a 'do not resuscitate' order, is that right?

12

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A. Yes, that's true.

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Q. That, Mr. Commissioner, is at Volume 17, pages 2833 to 2834. At pages 2835 to '6 of that same volume, Dr. Rowe told us that the terminal events resembled those really of Paul Murphy and Laurette Heyworth. They didn't represent a dramatic sudden decline. He said the death and the time of death and the manner of dying were consistent with the clinical and anatomical condition of this child. Do you agree with that?

21

A. Yes.

22

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Q. He also said that the terminal events manifested by David Leith were consistent with

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digoxin intoxication but he said the only evidence was a slowing of the heart rate before death. Do you agree, Doctor, that that is the only recorded event that is consistent with digoxin intoxication in the case of this child?

A. Yes, and we again unfortunately had a digoxin level the day before his death, the 5th, that was within almost normal limits.

MR. LAMEK: Mr. Commissioner, that evidence, that latter piece of evidence, is found at Volume 17, pages 2836 to 2838.

Q. In the case of Colleen Warner, Dr. Rowe in Volume 16, page 2807, gave it as his judgment that the probable cause of this patient's death was her heart disease with which the manner of her dying was entirely consistent. Do you agree with that?

A. Yes.

Q. Anything to add about Colleen Warner?

A. No.

Q. In Volume 18 at pages 3155 to '6, Dr. Rowe told us that in his opinion the terminal events, their onset and their course, in the case of Barbara Gionas, were consistent both with her clinical



G.14

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and anatomical condition and with digoxin intoxication.

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Do you agree with that evidence, Dr. Fowler?

4

A. Yes.

5

Q. But he said at page 3156 that

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he was still of the opinion that the congestive

7

heart failure ---

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THE COMMISSIONER: I'm sorry, what
page was that again?

9

MR. LAMEK: 3156, sir.

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Q. Still of the opinion that that

11

child's congestive heart failure was the most likely

12

and the predominant cause of her death. Do you agree

13

with that assessment?

14

A. Yes.

15

Q. Yes. In the case of Michelle

16

Manojlovich, I confess, Dr. Fowler, I am not really

17

sure what Dr. Rowe thought of this death. He thought

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it likely, and this is found in Volume 17 at page

19

3025, he thought it likely that she had aspirated her

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feeding but unfortunately there was no autopsy

21

performed and therefore no clear evidence of that. He

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did agree, at page 3026, that her death was sudden,

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although he wasn't sure that it was unexpected and,

24

therefore, I am obliged to ask you, Dr. Fowler, on

25

the basis of what you knew of this child and her care



G.15

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and management, did you regard her death as sudden?

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A. There is the suggestion ---

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Q. Would it be helpful to have the
record, sir?

5

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A. That might be helpful. I have
some notes but that might be helpful if I could see
her record.

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Q. Yes, of course. I think it is
just Volume 1 that is needed. It is Exhibit 111.

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A. Yes, she had an episode of
aspiration on the ward and had to be sent down to the
Intensive Care and then she was thought to be well
enough to come back to the ward and that in itself
would suggest that she is in a rather precarious
situation, the fact that she did aspirate and had to
go back down and I think that we felt that this, plus
her other cardiac problems, were at the time seemed
to be enough to explain her death, although, it does
seem to be fairly relatively sudden.

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Q. Dr. Fowler, you are quite right.

At page 168 there is reference to the child's being sent back to the ICU on March 4 because of aspiration pneumonia and increased heart failure.

She did come back from the ICU but unfortunately without an autopsy it is not absolutely clear whether there was a further episode of aspiration.

A. Yes.

Q. I think my question, Doctor, was not so much yet whether the death was consistent with her clinical condition, but was it sudden in your view?

A. Well, certainly looking at the notes here she had some signs in her chest beforehand, and I think that that is probably fair to say that it is relatively sudden.

Q. Did you regard it as an unexpected death at the time that it occurred, Doctor?

A. I don't think that I would have expressed - I didn't feel that it was unexpected.

I think this is a very ill child and she has had her problems. I think that it is not unexpected that she might die quite suddenly. Particularly since she has already had one episode of



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aspiration which seems to be more common in children who have severe heart failure, having difficulty with breathing as they are eating.

Q. Doctor, do you regard the death and manner of dying as consistent with her clinical condition?

A. I think it could be.

Q. You seem to be expressing some doubt or reservation about that. You say you think it could be.

A. Well, you see I think she has a type of abnormality that is lethal really. There are very, very few people who actually reach adult life with this abnormality.

Q. Yes?

A. And so they are very ill during the whole time if they do survive for a while, and this is why one is a bit, you know, one would question a little bit that it isn't really that unexpected that they might die at this situation, in this situation.

Q. And die in the manner and in the way that she did?

A. Yes.

Q. Is the manner of her dying also consistent with digoxin intoxication?



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A. It is conceivable that that is possible, yes.

Q. We move then to Kevin Pacsai. Here Dr. Rowe considered the terminal events, and this evidence, Mr. Commissioner, is in Volume 17, page 2949 and 2950.

Dr. Rowe considered the terminal events displayed by this child, their onset and their course to be consistent with digoxin intoxication. Do you agree with that?

A. Yes.

Q. And he said that he could find no reason on the basis of what was known about Baby Pacsai's physical and clinical condition for the course of the events that in fact occurred.

Do you agree with that?

A. I think I would go along with that. I think that we have got a child with a severe arrhythmia, but he is recovering from it, and it is a bit unusual that he would suddenly die. But then I think, as you know, Dr. Bain has reviewed this patient and wonders about another problem that may be an explanation for sudden death.

Q. Dr. Fowler, do you know who drew the blood samples or ordered the blood samples



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drawn for digoxin assay at the time of this child's death?

A. I think that Dr. Costigan was - he either drew them or he had somebody else draw them, and I think it was on his order that these were done.

Q. When did you acquire that information?

A. Well, I think that - I don't remember exactly, but I think that - he was the senior resident and he came to the ward to see the child and had it transferred down to the intensive care. And I am not sure that I knew that he had ordered those, but I think that in his notes he has mentioned that this is - that dig. intoxication was a possible explanation for his arrhythmia, and I guess I must have realized that he had taken the levels at that time.

Q. Other than the inference that you draw from the note in which Dr. Costigan questioned whether digoxin toxicity was the cause of the arrhythmia, other than that inference do you have any information as to why the samples were drawn? What prompted the ordering of the sample?

A. Well, I think he is just a very good clinician and he is trying to cover all the possibilities to try and explain this event, and if he



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writes down that he suspects that it is conceivable that digoxin was related to the problem, then he would actually draw the samples and see if that was correct.

Q. Have you at any time had any discussion or conversation with Dr. Costigan about his reason for ordering these samples drawn for digoxin assay?

A. No, I don't remember a conversation with him on this matter.

Q. Is it your understanding, Dr. Fowler, that one of the samples was drawn very shortly before the child's death?

A. In the intensive care?

Q. Yes, I believe so.

A. You see the child was resuscitated on the ward.

Q. Yes?

A. And they had a blood sample then, and I am not -- I didn't know that they had done another sample in the intensive care.

Q. I confess the evidence is a little unclear as to that.

A. Yes.

Q. We may have to await Dr. Ellis,



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but I wondered if you had any understanding.

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A. Yes. No, I am sorry.

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Q. There was a sample drawn during
the resuscitation on the ward --

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A. Yes.

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Q. -- prior to the transfer to

7

the ICU?

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A. This is my understanding.

9

Q. That may be the sample that I

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am interested in then.

11

I want to come back for a few minutes

12

to your learning about the Pacsai digoxin level and

13

what happened thereafter. But first let me quickly

14

review Dr. Rowe's evidence about these March deaths.

15

A. Yes.

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Q. In the case of Allana Miller

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we know she died early on March 21, and Dr. Rowe has

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said (this is in Volume 18, sir, at pages 3232 to

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3233), Dr. Rowe has said that upon learning of this

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baby's postmortem digoxin level he believed that she

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had died of digoxin intoxication caused by an obvious
overdose.

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I take it that was your view too when

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you first learned of the digoxin levels measured in

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Baby Miller's postmortem sample?

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A. Yes. The incident that I had -
this is Allana Miller?

Q. Yes.

A. Yes. As soon as I had the levels
on Saturday night then after of course having the
conference with the coroners in the afternoon, then
again I immediately felt that there was - that this
was possibly related to her death and it is
conceivable that it was an intentional overdose.

Q. Well, Doctor, did you not feel
rather more strongly than this was possibly related
to her death? Did you not at that point believe that
the digoxin was the cause of her death?

A. I thought that that was likely.

Q. Yes. Now, Dr. Rowe now says
fairly that again subject to the opinion of the
pharmacologists with respect to those postmortem
levels --

A. Yes.

Q. -- he considers it possible
that Allana Miller died of digoxin intoxication.
And is that a view with which you now agree?

A. Yes, that is possible. But
also she has a very serious heart disease.

Q. Oh, yes.



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A. That could easily cause her sudden death. She has pulmonary vascular disease and that is one of the causes that we outline in our paper.

Q. So we can agree, can we not, that there has to be an explanation of what that 78 nanogram level --

A. Oh, of course, naturally we have to explain it, certainly.

Q. Dr. Fowler, is there anything that you want to add about any of the patients to whom we referred, or indeed about any of the 36 patients including those to whom we have not expressly referred this morning?

A. No, I don't think I have anything to add.

Q. May we then turn to your reaction and responses to the information that was coming to you, particularly during March of 1981? At some stage in the month you learned of the post-mortem digoxin level at 72 nanograms per millilitre measured in the sample taken from Janice Estrella?

A. Yes.

Q. At some in March you learned of that?



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A. Yes.

Q. And as I understand it you learned of that when you received the autopsy report?

A. Yes.

Q. And upon receiving the autopsy report you took the report and the information, of course, to Dr. Rowe?

A. Yes.

Q. And let him know of it?

Now Dr. Rowe's recollection is that that occurred in the second week of the month, second week of March. That is to say before he learned of the Pacsai digoxin levels.

A. Yes.

Q. And I understand, Dr. Fowler, that you learned about the Pacsai levels on March 18th?

Perhaps, Mr. Registrar, we could have Exhibit 109?

A. Yes. In retrospect I am not exactly sure when I received that digoxin or that postmortem report on Estrella.

Q. Yes?

A. But I think it is in March some time. And as you know, this was after discussing it with Dr. Rowe we decided that this was probably not a



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true bill and we didn't think of that.

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Q. I have referred to Exhibit 109,

Dr. Fowler. That is a memorandum, I understand, by
Dr. Carver, dated March 18th, 1981, at 10:15 in the
morning, about Kevin Pacsai in which he records that
Dr. Costigan has told him of the death of Pacsai last
Thursday and of the digoxin level of 25 which was
checked at postmortem and found to be accurate.

He goes on:

"I have discussed this matter with
Dr. Fowler, the responsible physician
for the patient, and with Dr. Rowe,
the division chief of cardiology."

And he asks that certain things be done. Do you
recall it?

A. Yes.

Q. And that appears to have occurred
on March 18th?

A. Yes.

Q. Now as at March 18th is it your
recollection that you had already received the news
of the Estrella level?

A. I can't say exactly when I
received that information, but I might well have had
it by that time. I suspect that I didn't receive that
prior to that time.



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Q. Well, if Dr. Rowe's recollection

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be correct then --

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A. Yes.

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Q. Then the Estrella information

6

came first in the second week of the month.

7

A. Yes.

8

Q. Followed by the Pacsai infor-

mation on the 18th?

9

A. Yes.

10

Q. Upon learning of that Estrella

11

postmortem level, what was your reaction or response?

12

I know you took it to Dr. Rowe, but you must have

13

assimilated it before you did that?

14

A. Well, I looked after this child

15

for some time before she was brought in the hospital.

16

Q. Yes?

17

A. I wasn't directly, well,

18

responsible for care in the hospital, but I had

19

roughly heard that things were not going well and that

20

she had a lot of problems after the repair of her

21

defect, and she was, you know, she was a very ill

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child and I had the feeling that this dig. level was

23

so far out of anything that I had ever seen in my

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medical experience that I thought that this must surely

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be an error of some sort: either in the way the blood



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2 was drawn or whether perhaps just a mechanical error
3 of decimal place or something of this sort.

4 I had the feeling - this was my feeling
5 that this was not a true bill, and I think in retro-
6 spect that with all the things that have been going
7 on I think, I personally think that it is still
8 conceivable that this isn't a true example of digoxin
9 intoxication, but it may be.

10 Q. Yes. Doctor, that may be, and
11 that is one of the things that this Inquiry is about,
12 of course.

13 A. Yes.

14 Q. But I take it - can I sum it
15 up in a word "incredulity"? Is that your response
16 to that number when you first saw it?

17 A. Yes, that would sum it up.

18 Q. It simply cannot be right?

19 A. Yes.

20 Q. There has got to be something
21 wrong with that number. If it were a decimal place
22 error would you have been able to find an explanation
23 for a level of 7.2?

24 A. Yes. This would be more within
25 my realm of explanation.

Q. Yes?



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A. And I could say it was a very sick child whose kidneys were packing up and it might go to that level and would not be anything strange.

Q. And you then would have to test the hypothesis of kidney dysfunction?

A. Yes, that is true.

Q. And you may or may not have been satisfied with the evidence of that?

A. Yes.

Q. But that is at least something you could have grappled with?

A. Yes.

Q. Did you make any enquiry about either the sample or the measurement of the level?

A. No. I didn't proceed with that. We had - Dr. Freedom was our sort of liaison with the pathology and I didn't pursue this and because this was a report from the Pathology Department I think both Dr. Rowe and I thought we should discuss it with Dr. Freedom and he had the same sort of opinion as we had.

Q. And you did discuss it with him?

A. I don't remember the specific conversation, but I think that Dr. Rowe and I thought that we should discuss it with him and see what further



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H 14 2 had to be done.

3 Q. We have heard from Dr. Freedom
4 that his mother had died at the beginning of March,
5 as you will recall.

6 A. Yes.

7 Q. And his recollection was that he
8 was not back in the hospital until, ominous date,
9 Friday the 13th of March.

10 A. Yes.

11 Q. And is it your recollection
12 without being able to be precise about it that it was
13 upon his return that any discussion with him took
14 place?

15 A. Well, it would have had to have
16 happened after he returned.

17 Q. Do you have any recollection of
18 Dr. Freedom saying that he had been told about the
19 Estrella level either in late January or early
20 February?

21 A. I don't remember the details of
22 that, no.

23 Q. You mean you don't remember the
24 details of a conversation or the details of just what
25 it was that you said about that?

A. Yes. No, I don't remember him



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saying that he specifically knew about this long before that. I don't remember such a conversation.

Q. Did you make any enquiry as to why it took two months for this digoxin level information to get back to the ward?

A. Well --

Q. The child had died in January and it was now the middle of March.

A. Well, this is entirely consistent with the pathologists. You see the pathologists are dealing with people who are dead and so the stress of --

Q. The urgency has disappeared for it, has it?

A. Has disappeared, and if a pathologist finds something striking at his pathology examination, he naturally would get in touch with the referring physician right away.

Q. Would you not regard a level of 72 nanograms per millilitre striking?

A. Yes. This is striking, but it is so striking that it was also treated by the pathologists the way we treated it as clinicians. And they said that this just can't be a real thing, and so they said, no, this child must have died of her disease.



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Q. Well --

A. You see I think this evidence, the fact that that didn't arrive on my desk until two months later would suggest that the pathologists themselves did not think that this was a true bill.

Q. I agree. That is an inference one could draw from that.

A. Yes.

Q. And we will obviously be talking to Dr. Mancer about it.

A. Yes.

Q. Do you have any information, though, Dr. Fowler, as to whether any enquiries were made by the pathologists of the Biochemistry Department about that Estrella sample?

A. No. I am not familiar with what they did from that point of view.

MR. LAMEK: Is this a sensible time to break for lunch, Mr. Commissioner?

THE COMMISSIONER: Yes. Until 2:30.

MR. LAMEK: 2:30, thank you.

--- Luncheon adjournment

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--- Upon resuming

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THE COMMISSONER: Yes Mr. Lamek.

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MR. LAMEK: Thank you, Mr. Commissioner.

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Q. Dr. Fowler, before we rose for

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lunch we were talking about the Estrella digoxin levels,
or the levels that were reviewed in the postmortem
samples drawn from Baby Estrella.

8

A. Yes.

9

Q. I think you have told me that

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upon learning of the 72 nanogram level, in the first

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place you found that an incredible number and we

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understand that, and you told me you thought the

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possibility of a transposition of a decimal point, or

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the way the sample was drawn or anything of that sort.

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The matter that the autopsy report expressly referred
to was a slight contamination of the sample.

16

A. Yes.

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Q. Would it help you to have the

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chart in front of you, Doctor?

19

A. No, I can remember that sample.

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Q. Yes, the pathology report read

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in its final sentence:

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"Samples of postmortem blood were

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obtained for assay of digoxin levels.

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These samples were contaminated slightly

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"by edema fluid and ascitic fluid.

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The digoxin levels on these samples

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measured 72 nanograms per millilitre.

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This is markedly elevated over the

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normal therapeutic range and if

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accurate would explain the death of

8

the patient."

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Did you have any view on the effect,

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if any, that that slight contamination might have

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upon this sample, or was that something you did not

feel qualified to form a judgment about?

12

A. I am not familiar with the

13

detailed pharmacology of digoxin. I really don't

14

have any knowledge of what that kind of contamination

15

or what they mean by contamination and what the

16

contamination might do to the sample. Subsequently

of course I found out about that.

17

Q. Was that something that you

18

understood Dr. Freedom was going to enquire into?

19

A. Yes. We thought that this would

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be looked into. Again as I say our feeling was that

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the pathologist didn't put too much store on that,

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or something might have been, or would have been done

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much sooner, so this did not seem to be an urgent

thing to pursue.

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Q. On Saturday, March 21st, you attended a meeting with coroners and policemen at the Coroner's Office, did you not?

A. Yes.

Q. And at that meeting the cases of Estrella and Pacsai were discussed?

A. Yes.

Q. And did you know ahead of the meeting that those two deaths were to be the subject matter of discussion?

A. I don't know - I am not quite sure. I was notified on Saturday morning and as you realize from everything that was going on I was very busy.

Q. Yes.

A. And somebody sent word to me that we were having a meeting with the coroners, and that Dr. Rowe was going as well as other people. I am not quite sure whether I knew exactly what the subject of that meeting was or not.

Q. By the time you went to that meeting were you aware that on March 20th Dr. Mancer had reported the Estrella death to the Coroner?

A. No, I wasn't aware of that until the other day when I was looking over the evidence of



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Dr. Rowe.

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Q. Did it occur to you to wonder when you got to the meeting why the Estrella death was being discussed if you had no knowledge it had been reported to the Coroner?

A. No, I immediately of course remembered this very strange reading and I was not surprised that they were going to discuss this, but I thought that perhaps that Pacsai was the major sort of patient that they would be looking into.

Q. So at the time you went to that meeting on the 21st of March, on Saturday the 21st of March, can you tell me something of your state of mind with respect to the Pacsai death? What was your then thinking about Pacsai?

A. Well I had the feeling that this was a very strange reading, that this was more within my realm of suggesting that maybe it was a real reading also having been taken during life. So I immediately felt that this was very abnormal and that it might be an accidental overdose, or intentional. I realized at that time that this was potentially a very serious situation.

Q. Now on the 18th, on the Wednesday the 18th of March, Dr. Carver had asked that certain



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steps be taken to investigate matters surrounding
that Pacsai level had he not?

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A. Yes.

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Q. And had you in the course of
the next day or so made enquiry on the ward as to
the administration of the prescribed doses of
digoxin to that child?

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A. Yes, I did.

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Q. And had you been satisfied that
the prescribed doses had in fact been administered as
prescribed?

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A. Yes. As far as I could tell
from that time that they were correctly given and
checked out. I actually didn't see, I didn't actually
interview Susan Nelles, but I talked to the head nurse
on that side and she in turn had had an interview with
her and she was convinced that the correct dose had
been given.

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Q. Do I take it that your investi-
gation of that disclosed no evidence of a drug error,
or mistaken overdose to the child?

A. Yes, I thought at that time.

Q. When had you completed that
aspect of your investigation?

A. Well we did a few other things,



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taking some stock digoxin and I think the pharmacist
phoned the people who make lanoxin.

Q. Yes?

A. And they looked into that batch
that had arrived. All those investigations were
negative as well. So I sent a memo to Dr. Carver
and to Dr. Rowe on I think the Friday.

Q. On the 20th as you recollect?

A. Yes.

Q. Is it fair, Dr. Fowler, that as
of the 18th of March when you learned of the Pacsai
results, you had at that point to consider the
possibility, perhaps even the probability of an over-
dose in some way or another?

A. Yes.

Q. To that child?

A. Yes. There is no question that
that was in my mind at that time.

Q. Is it also fair that as a result
of the enquiries that were made on the 18th, on the
19th and perhaps on the 20th, the - if I can put it
this way - the innocent explanations of that presumed
overdose were fast being precluded?

A. Well - yes, I think that one
would have to think more about an intentional problem.



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2 Although I am not a policeman and I don't know how to
3 investigate that, in great detail, but from my
4 superficial investigation I had the feeling that it
5 was not likely to be done, but of course it is still
6 possible somebody was covering up and they actually
7 did make an error and then said something else.

8 Q. That was possible but you saw
9 no evidence of it?

10 A. No.

11 Q. Is it fair then that by March
12 20th your investigations into possibly innocent
13 explanations of this Pacsai level were all coming up
14 negative?

15 A. Yes, I think that is fair to say.

16 Q. And was it from March 20th that
17 you began seriously to entertain a thought that this
18 may have been an intentionally administered overdose?

19 A. Yes, I think that is a
20 possibility. I still, as you can well imagine
21 physicians sort of feel that all other types of
22 explanations are more palatable than that one and so
23 I felt that it still was possible that there was some
24 type of error. I think probably on Saturday with -
25 at the meeting, it became clearer that when these two
patients were discussed together it became much clearer



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2 in my mind, and I think probably not until Saturday
3 afternoon did I feel that really this was very
4 sinister what was going on in the hospital.

5 Q. Doctor I can understand a
6 physician would find it repellant even to contemplate
7 that someone in hospital might be deliberately
8 damaging patients.

9 A. Yes.

10 Q. But if by the 20th you were
11 beginning to be forced to face that possibility, did
12 you not at that time cast your mind back to the
13 Estrella result that you had learned of perhaps a week
14 earlier?

15 A. No I didn't on the 20th because
16 that had been satisfactorily, in my mind, discarded as
17 not a true bill. So I didn't on the 20th think of
18 anything except that one case of Pacsai.

19 Q. When you went to the meeting on
20 the 21st, do you recall whether you or anyone from the
21 hospital who was at that meeting made any reference to
22 the possibility that the Estrella level of 72 nanograms
23 might be a lab error?

24 A. Yes. We felt that this was still
25 a possibility and I still feel that still this may not
be a true bill.



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Q. Now I am sure that is true Doctor, but do you recall whether you or anyone else from the hospital who attended that meeting, said that at the meeting?

A. I can't remember the content of that meeting at all. I don't remember exactly what was said. Some people have taken notes about that meeting, but there is no official minutes of that meeting that everybody that was there agreed, told exactly what was said at that meeting. I can't remember that specifically.

Q. I take it then Doctor you have no recollection whether anybody from the hospital said at that meeting that the Estrella sample may have been contaminated and that the level therefore may be unreliable?

A. I have no memory of that, but it is quite conceivable that someone did make that comment.

Q. Indeed Doctor if you then believed, as you have told me, that this reading was unreliable either because of contamination or the possibility of error, can you think of any reason why that would not have been said at the meeting?

A. Yes I would agree that would be



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most likely that somebody would have mentioned that.

Q. Because the Coroner appeared to be concerned about the Estrella death, did he not?

A. Well I think he was concerned about two deaths.

Q. Yes?

A. And I think that one death that seemed quite clear, because we had a proper sample on Pacsai, and other deaths in which there was question as to what, the meeting of the chemical things, that the Coroner and everybody else concerned felt that fairly detailed investigation should be done to try and get to the bottom of this. That was, the conclusion was that the Police were going to come in on Monday and begin that investigation.

Q. Did you in the course of that meeting, seeing the Coroner's evidenced concern not only in Pacsai but in Estrella, did you in the course of that meeting begin to wonder whether indeed the Estrella reported level was a true and reliable level?

A. Well I can't remember. I still think that there is some question. I suppose at that time I must have felt that was still a question in my mind, but I don't remember specifically thinking that specifically at all.



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Q. Do you recall whether at that meeting you or anyone from the hospital mentioned the fact that Allana Miller had died early that morning?

A. Well, I am surprised that we didn't, but there seems to be a fair bit of evidence to suggest that that death was not discussed at that meeting. I think the reason for that was that she again was a child with a serious disease, that died presumably from her disease, and I again was notified about the death by residents on the ward and they decided that probably the Coroner did not need to be notified about that at that time, because it was within our experience a natural death. It wasn't until the chemical evidence was forthcoming later on that we realized this, that it was a very unusual thing and that was the time that we notified the Coroner.

Q. Doctor forgive me, but not to worry yourself about what the other evidence may have been, but I asked you whether you had any recollection of anyone from the hospital at that meeting mentioning the fact that Allana Miller had died?

A. No.

Q. You don't have a recollection?

A. No, I don't have that recollection.



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Q. You of course knew of her death?

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A. Oh yes.

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Q. It was reported to you?

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A. Yes. I also had told Dr. Rowe

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and Dr. Carver and both of them knew that she had died,

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but neither of them either had - I guess, I think that

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perhaps Dr. Rowe thought that I had already notified

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the Coroner. I think there must have been some mis-

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understanding, but it was my responsibility to do that

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being the physician in charge at the time and I

decided not to.

12

Q. If you considered Allan Miller's

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death a natural one until it was proved otherwise, why

14

did you tell Drs. Rowe and Carver about that death?

15

A. Well I guess I told them simply

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because we were having a lot of problems on the ward

17

and that this was another death that we had among

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several that month. So I imagine that is why I

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Q. Had you reported any of the prior

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deaths of the month to Dr. Carver?

21

A. I can't remember that, I don't

22

know whether he was aware of the fact that we had some

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other deaths on the ward that month, I am not sure. I

24

don't specifically send death reports to him at that

25



1
2 time.

3 Q. I wouldn't have thought so. Did
4 you know when you went to that meeting on the 21st that
5 samples had been drawn from Allana Miller for digoxin
6 assay?

7 A. I am not sure that I knew that,
8 and I am not sure who was responsible for taking those
9 samples.

10 Q. Now that night of course you
11 learned of Baby Miller's postmortem digoxin level?

12 A. Yes.

13 Q. Can you tell us please when and
14 from whom you got that information?

15 A. I had that information from
16 Dr. Carver. He said that, you know, this would
17 naturally put a whole different light on that death.
18 He felt that I should notify the Coroner immediately,
19 which I did. He said he wanted to have a meeting in
20 his office with Costigan and other people, supervising
21 nurse and so on to do something to attempt to try and
22 avoid a further problem.

23 Q. Could we just get into some
24 detail of that Doctor? Do you remember what time it
25 was when Dr. Carver got in touch with you and gave
you the information about Allana Miller?



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A. I think that must have been
around 8 o'clock.

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Q. And upon receiving that infor-
mation, what did you do?

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A. Then I phoned, I left a message
with I think - this is again a long time ago. As I
remember I think that I phoned the Coroner's Office
and said that I wanted to speak to Dr. Teperman.
Then I went down to the hospital and then we began a
meeting there. Then subsequently Dr. Teperman came
along and explained to Dr. Carver what he felt we
should do.

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Q. When you went to the hospital
did you meet there with Drs. Carver and Costigan?

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A. Yes, and Dr. Mountstephen and
one the night supervisors, I don't remember who that
was.

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Q. We know Doctor that one of the
things that came out at that meeting was the decision
to have digoxin treated as a controlled drug?

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A. Yes.

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Q. Did anything else come out of
that meeting?

A. I think that it was decided that
senior residents should go up and remove all the



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2 digoxin from all the crash carts, and that all the
3 drug cupboards would be locked up at that time, and
4 word of mouth would go to all the wards that they
5 would have to have two signatures and treat digoxin
6 as they did, as they do with a narcotic, and the
7 pharmacists were going to come in in the morning
8 and remove all the digoxin from every place in the
9 hospital and replace it with fresh supplies, and
10 then begin a control of the drug and make sure that
every single dose is accounted for in the log.

11 Q. And was that the reason for
12 replacing the stores of digoxin with fresh stores
13 so it would be a bench mark from which to measure
14 material taken?

15 A. I suppose that is one of the
16 reasons. I suppose the other reason was to be sure
17 perhaps there wasn't, there might be something wrong
18 with the supplies on the ward, although I had already
19 done that on the cardiac ward, they decided to do that
throughout the hospital.

20 Q. Whose was the idea to have
21 digoxin treated as a controlled drug?

22 A. I think that was definitely
23 Dr. Carver's idea, as far as I remember.

24 Q. Doctor, one other thing about the
25



1
2 matter of the meeting of the 21st, prior to attending
3 that meeting, and I understand that you and Drs. Rowe
4 and Carver were the medical people in attendance?

5 A. Yes.

6 Q. Prior to attending that meeting,
7 was there any discussion --

8 MR. HUNT: I am sorry, what meeting is
9 that?

10 MR. LAMEK: The meeting of the 21st,
11 I am sorry.

12 MR. HUNT: Which one, in the afternoon?

13 MR. LAMEK: In the afternoon, yes, I
14 am sorry.

15 THE WITNESS: With the Coroner.

16 MR. LAMEK: Q. Yes, I am sorry,
17 the Coroner's meeting in the afternoon of the 21st.

18 A. Yes.

19 Q. Prior to attending that meeting
20 was there any discussion or conversation between you
21 and either of the others, Rowe and Carver, as to what
22 if anything should be said about the Miller death?

23 A. No, I don't remember a discussion
24 at all. I don't think there was any reason to withhold
25 that information from the Coroner. I think it was just
reported as an occurrence on the ward and it was left



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at that.

Q. And was there any discussion or conversation between you and either of the others as to what if anything should be said about the reliability of the Estrella level?

A. No, I don't remember discussions about that either.

Q. I have just one final area if I may, Dr. Fowler, and it concerns again Kevin Pacsai.

- - - -



Sept. 13, 1983.

RCHSC

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Q. When Kevin Pacsai died and you were called and told of his death, did you consider his death to be sudden and unexpected?

A. Well, I think that his episode on the ward was rather sudden and he had been then resuscitated from his arrest and, as I have mentioned before, the survivors of cardiac arrest are very low and it wasn't surprising that eventually he did die with an arrhythmia and I felt at that time, not knowing the digoxin levels, that this was the result of having a terrible insult to his heart because it was stopped for awhile and this is why he died.

So, that wasn't expected or sudden at all, but I think the episode on the ward was less or much more sudden and unexpected.

I think one would probably say that this was a continuation of the resuscitation procedures that eventually were unsuccessful.

Q. In the light of what you knew about his clinical condition and about the time and manner of his death, did you, before you learned about the digoxin, did you consider that that case was one that should be reported to the coroner. It is a purely medical question.



BB-2

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2 A. From just looking at his
3 medical signs and symptoms this is a questionable
4 call and I guess had it not been for the other
5 circumstances of his father's reaction, it is
6 conceivable that we - I think that it is quite
7 conceivable that we might have called the coroner
8 anyway because of the fact that it was a rather
9 unusual situation that he was to die at that time
10 after appropriate treatment, had seemd to be
11 relatively well on the ward and I think that we
12 might well have called the coroner anyway even if
13 we didn't --

14 Q. In fact you did call the
15 coroner?

16 A. Yes.

17 Q. And the particular situation
18 that prompted you to do that, as I understand it,
19 was the perhaps violent extravagant reaction by the
20 father of the child upon learning of the death?

21 A. Yes, this seemed a little
22 bit unusual to me and I felt that it was - naturally
23 I was wondering about child abuse of some sort and
24 I thought that perhaps we should at leave have
25 reported it.

Q. I take it in any event when



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March the 18th rolled around and the digoxin level became known?

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A. Yes.

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Q. At that stage it clearly

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in any event would have been a reportable death, would it not?

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A. Oh, yes, of course.

8

Q. Can you bear with me for

9

just a moment, Doctor.

10

I am reminded of one other area,

I can do it in a couple of questions, Doctor.

11

A. Yes.

12

Q. I understand you did not

13

attend any of the mortality or morbidity conferences that were held in September of 1980?

14

15

A. No, I did not.

16

Q. You were of course present

17

at the meeting on January 12th?

18

A. Yes.

19

Q. When some 20 deaths were

reviewed?

20

A. Yes.

21

Q. And as a result of which

22

you became the member of and, indeed, you chaired

23

a committee to consider the implementation of the

24

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BB-4

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2 idea to have an intermediate ICU?

3 A. Yes.

4 Q. Did you have any knowledge,
5 Doctor, of a proposed further review of deaths
6 since January 1, 1981 which was to begin in the
7 latter part of March of 1981. Do you know whether
8 any further review was proposed?

9 A. I don't remember any
10 details of that, no. I was working with the
11 committee to present this, the plan for this ICU,
12 but I don't remember a specific sort of plan to
13 review other deaths at that time.

14 MR. LAMEK: Okay, Dr. Fowler,
15 thank you very much.

16 THE COMMISSIONER: Mr. Rowland?

17 EXAMINATION BY MR. ROLAND:

18 Q. Dr. Fowler, Mr. Lamek asked
19 you if you had read Dr. Rowe's evidence and you
20 indicated that you had read it. I take it you
21 have also read Mr. Scott's examination of Dr. Rowe
22 and in particular, Mr. Commissioner, this is in
23 Volume 19 beginning at page 3315, the line of
24 questions put by Mr. Scott to Dr. Rowe concerning
25 some 14 possible causes of death that will give



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some of the same symptoms as digoxin toxicity.

Those 14 he ran through with Dr. Rowe were heart failure, hypoxia, sepsis, respiratory illness, instability of temperature, low birth weight, four types of conduction failure, acidosis, apnea and anemia and, finally, Di George Syndrome.

I take it you have read that evidence, have you?

A. Yes, I have.

Q. Yes. He asked Dr. Rowe about the various symptoms of digoxin toxicity, such as bradycardia, vomiting, the sudden onset of the death that may be accompanied by ventricular fibrillation and arrhythmia and I ask you, do you agree with the evidence given by Dr. Rowe that these other 14 causes of death indicate to varying degrees those same symptoms of digoxin toxicity?

A. Yes, I agree with Dr. Rowe's analysis from that point of view.

Q. Yes. And in taking you through very briefly as Mr. Lamek did this morning the various children that we are concerned with and their deaths and the onset of the features that immediately led to their death, he indicated that Dr. Rowe had said, and he took you to the testimony that Dr. Rowe said that these deaths were, many of



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these deaths were consistent with digoxin toxicity. I gather you, in reading Dr. Rowe's evidence, you also found him to say, but not necessarily indicative of digoxin toxicity. Do you agree with that?

A. Yes.

Q. That these deaths were not necessarily indicative of digoxin toxicity?

A. I think to use the term consistent with but possibly in various degrees not likely to be the cause of the deaths.

Q. Yes. And I gather you agree as well with Dr. Rowe when he comes to assign a cause of death like you, he would look to the evidence that there is in the charts and what evidence you can gather from speaking to residents who had immediate contact with the infant before the death in order to find facts or evidence that would disclose possible causes of death and that that is the process of trying to determine the cause of death, to look to the evidence that is available?

A. Yes.

Q. You don't simply speculate on possible causes of death where there is no evidence that would lead you to those possibilities?



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A. That is true.

Q. And I gather in the cases that were dealt with this morning, at least the cases you were involved with directly, you in each case, up until the ones we have immediately talked about in the last few cases in March, were able to find evidence in each of those, and facts from the charts and from your knowledge of the babies and their course in the Hospital, that led you to a conclusion as to the cause of death?

A. Yes.

Q. And that you were satisfied with those conclusions based on the evidence you were able to determine from the charts and from the residents and from the other physicians?

A. Plus, you must remember that another arbiter in those whole problem in deciding about the death of a child is the post mortem examination.

Q. Yes.

A. And this is a very important part of our examination of somebody who dies and this is the reason that we make every effort in every patient who dies in our Hospital, certainly in the Cardiac Ward and I'm sure in every other ward,



Fowler,
ex. (Roland)

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to have a post mortem examination done in order to satisfy ourselves that what our clinical assessment of the cause of death is actually justified by the post mortem examination.

Q. Yes. And I take it in those cases of which you were involved and which post mortems were done and you obtained the results, of those post mortem examinations you were satisfied in concluding the causes of death that you did?

A. Yes, except for these most recent cases that we have talked about just recently.

Q. Yes. You may not have read this evidence, it was given by Dr. Freedom on September the 8th. It is Volume 30 at page 5566. Dr. Freedom was asked if there are certain other drugs or compounds that if administered in toxic doses would cause the heart to stop by means of a conductive mode and he offered at least four other compounds or drugs that would do that: potassium, calcium, quinidine and inderol or propanolol. Would you agree with him that those, if administered in toxic doses, would cause the heart to stop by means of a conductive mode?

A. Yes, I would agree with those. Those of course are very commonly used drugs

What about "chemistries in the blood"
after death?



BB-9

1 or medications in a ward and I would agree.

2
3 Q. And he went on to say that
4 when asked if one of those compounds or drugs were
5 used, he was asked would there be anything that
6 would point to those compounds as a cause of death
7 rather than digoxin and he indicated that he
8 couldn't think of any way of distinguishing the
9 drugs as the compound or drug used that caused the
10 heart to stop as a result of the administration of
11 those drugs?

12 A. I think that the chemistries
13 in the blood prior to death might give some
14 indication if perhaps you had been poisoned by
15 potassium or calcium.

16 Q. Yes.

17 A. It is very difficult to
18 do with propranolol levels and quinidine levels
19 can certainly be done and possibly one could attempt
20 to, if one was thinking of poisoning with those
21 two drugs, it would be possible to get levels, but
22 one would be in a great, very difficult situation
23 as to know how much would be needed in order to
24 cause death and so on. There is very much less
25 literature I think on death due to those compounds
than there is on digoxin.



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THE COMMISSIONER: I'm sorry,
I don't think that was the problem. Maybe I'm wrong
but I thought the problem was whether the symptoms
would be different.

THE WITNESS: Well, the symptoms
could be identical.

THE COMMISSIONER: Yes?

THE WITNESS: Yes.

THE COMMISSIONER: Well, you say
could be or would be?

THE WITNESS: Could be, could be
the same.

THE COMMISSIONER: And I take it
they could not be as well?

THE WITNESS: They could be
different, yes.

THE COMMISSIONER: Yes, but they
could be the same?

THE WITNESS: They could be the
same. There are, you know, just a few sorts of
symptoms that occur in babies who are desperately ill
and about to die and many things can cause that.

MR. ROLAND: Q. Doctor, you were
asked this morning by Mr. Lamek about the papers that
you have written and, in particular, I don't know what



BB-11

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2 the exhibit number was, I think it was 176 - no,
3 175, a great deal of discussion about your paper
4 concerning sudden unexpected death in children with
5 congenital heart disease and I think we had it at
6 the end of that discussion that your paper was
7 concerned with the death of children over one year
8 of age, that is, over one years of age and up, up
9 to 21 years of age. Are you familiar with a document
10 that has already been put in as an exhibit ---

11 THE COMMISSIONER: Just so I can
12 understand that. You expressed, it says between
13 one and 21. Are they inclusive, one and 21?

14 THE WITNESS: Yes. Anybody who
15 is ambulatory, in other words, he has to be out of
16 the Hospital running around from the age of one to
17 21 who dies unexpectedly.

18 THE COMMISSIONER: My experience
19 is there are some babies at the age of one who don't
20 run around.

21 THE WITNESS: Yes.

22 THE COMMISSIONER: They prefer to
23 sit and be placated to. Would they be included in
24 this?

25 THE WITNESS: Yes, if they are
more than one they would be included.



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THE COMMISSIONER: Well, if they
are more than 12 months you mean?

THE WITNESS: Yes.

THE COMMISSIONER: Yes, all right.

MR. ROLAND: Q. We have an
exhibit already in these proceedings, it is
Exhibit 126, what has been referred to as The
New England Study. It is a report of the New
England Regional Infant Cardiac Program. Are you
familiar with that?

A. Yes.

Q. Dr. Rowe you will recall
was taken through that report and that report
indicated that in the - if we take it very
generally - that that report indicated that in the
first two months of the life of critically ill
babies with heart disease that there was a
mortality rate of approximately 50 per cent?

A. Yes.

Q. Are you familiar with that
kind of statistic ?

A. Yes, yes.

Q. And does that generally
conform with your understanding about the
mortality rate of critically ill infants with heart



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disease?

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A. Yes.

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Q. And I take it then that

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that is quite different than the kind of infant

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or child you were studying or you were writing about

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in the paper that we were discussing this morning?

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A. Yes. I think the fact

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that they have survived to one year this test of

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survival is a very important one and if you are

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alive at a year I think the chances of you dying

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are considerably less than when you are an infant

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of one or two months.

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THE COMMISSIONER: : But if you do

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die, I think the issue, if you do die in

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the first year are you more or less likely to die

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suddenly and unexpectedly, by the definition that

19

you are using in your article?

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THE WITNESS: I can't say that.

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THE COMMISSIONER: Because you

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didn't study that part?

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THE WITNESS: No, we didn't look

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at infants.

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THE COMMISSIONER: Are they more

likely to die?

THE WITNESS: Yes, they can die, but



BB-14

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2 whether they die very suddenly or not, except for
3 the SIDS, you know, the sudden death children,
4 which is a special ---

5 THE COMMISSIONER: Is that
6 generally speaking confined to children under one
7 year?

8 THE WITNESS: Oh, yes, that is
9 usually under, you know, two to six or seven months,
10 sudden infant death. That is a very special thing
11 and, as you know, there is a huge literature on the
12 studying of this type of death in children and
13 quite often they have anatomically normal hearts.

14 MR. ROLAND: Q. Doctor, let me
15 ask you finally about Allana Miller, and just a
16 couple of brief questions. I think we have it in
17 evidence already, and it has been gone through with
18 Dr. Rowe, that digoxin was indicated on the medication
19 and treatment record at page 38 of that exhibit,
20 which is Exhibit 115 in the record of Allana Miller
21 and that it was held at 9:00 a.m. on March 20th
22 and then it was given that evening at nine o'clock.
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And there is as well a note, an order to hold digoxin and then there appears to have been a subsequent order to have the digoxin maintained. I think that was at page 30 of the record. And that appears to be by Dr., is it Dr. Kabash or Kabashin?

A. Yes.

THE COMMISSIONER: Almost anything could be on page 30 on my copy.

MR. ROLAND: Yes. It is not very clear.

THE COMMISSIONER: What does it say?

MR. ROLAND: It says digoxin maintained.

THE COMMISSIONER: Yes, and what date is that?

MR. ROLAND: That is the 20th of March.

THE COMMISSIONER: Yes. All right.

MR. ROLAND: At 3 o'clock in the afternoon.

Q And on the 19th there was a dig. level taken. That is at page 88 of that record showing digoxin then of .6.

Do you recall a resident and a particular doctor --

A. Kabashi.



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Q -- speaking to you about
whether or not digoxin should be reinstituted?

A I don't remember that, any
discussion about that, but I think it is conceivable
that the digoxin level was drawn the previous day,
and when he got the result of, what was it, .6?

Q Yes.

A He realized that this child
needed digoxin because she was in heart failure, so
he reinstituted it perhaps on his own just because
this was a reasonable thing to do. So it is
conceivable he didn't ever discuss that with me and
just went ahead and did that. That is what I would
do myself if I was in that situation.

I suspect that he held the digoxin
and then restarted it when he realized the dig. level
was normal.

Q You yourself don't recall I take
it any conversation?

A No, I don't remember that.

MR. ROLAND: Thank you. Those are
all my questions.

THE COMMISSIONER: Miss Chown?

EXAMINATION BY MS. CHOWN:

Q Dr. Fowler, I would like to



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start out first of all with a matter that arises out of your article that was made Exhibit 174. That is your article on Accidental Digitalis Intoxication in Children. Really just a matter of clarification.

That article deals with your study of 48 children who suffered accidental digoxin intoxication?

A. Yes.

Q. And you refer at page 2 of your article to the clinical symptoms that you observed?

A. Yes.

Q. And I note that nowhere in that article is there any reference to digoxin levels themselves.

A. Yes.

Q. Am I correct in understanding that at the time this article was written (which is 1964) --

A. Yes.

Q. -- the method for testing digoxin levels by means of blood test were not yet developed?

A. Yes, that is entirely true. It would be some years later before they became available.

Q. All right. And by some years



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can you place that any more exactly in time for us?

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A. No, I can't remember. In the
seventies some time. I am not just sure.

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Q. So in this article when you are
describing intoxication you are relying on your
observation of certain clinical signs only?

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A. Yes, that is true.

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Q. I think you said in response to
a question by Mr. Lamek that indeed closer monitoring
has helped you in these observations. And would the
ability to take digoxin levels be one aspect of that?

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A. Yes. Very much so.

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Q. All right. Turning now to
another matter which Mr. Lamek asked you and you
indicated that you were not present at the mortality
reviews, either of them in September of 1980.

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A. Yes.

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Q. It is my understanding that you
were in fact in the Hospital during that time but you
were simply not present at those meetings?

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A. Yes. I can't explain why I
wasn't there but I must have been involved some place
else. But I was well aware of the content of the
meetings and what was done on each of the meetings.

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Q. Would you have discussed the



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content of the meetings with Dr. Rowe and Dr. Freedom
and other of your colleagues?

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A. Yes, I think so.

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Q And would you also have
participated in discussions of the deaths of these
particular children at the morning meetings after
their deaths had occurred?

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A. Yes. As you know we meet every
morning at 8:30 to discuss all the striking events
during the last 24 hours, and naturally any death
that occurred would be discussed at that time. So I
was aware of the deaths at the time they occurred of
each one of these children.

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Q And did you, as Drs. Freedom
and Rowe, share their view that these children appeared
to be sicker and younger than infants you had had as
patients in prior periods?

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A. Yes. I think this is very true.
It is a very cyclic sort of variation
in the severity and the age of the patients that come
in the cardiac ward, and we had the feeling at that
particular period that we were seeing more sicker
smaller infants than we had been seeing previously.

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Q I understand further that you
were present at the January meeting, and as you have



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indicated arising out of that you assumed some responsibility with respect to the study of the intermediate Intensive Care Unit proposal?

A. Yes, that is true.

Q. And indeed in these proceedings as Exhibits 136 and 137, we have minutes of your first meeting following that January meeting with Dr. Williams, Dr. Edmund and Mrs. Radojewski on January 20th?

A. Yes.

Q. And we also have a further report that you prepared on the intermediate Intensive Care Unit (that is Exhibit 137) and that is dated March 12th, 1981.

A. Yes.

Q. Doctor, I know that your views are set out in Exhibit 137, but can you briefly summarize for us in your view how an intermediate Intensive Care Unit would be of assistance to the patients on the floor?

A. We were, as you say, concerned that we did have a moderate number of deaths during the previous few months and we wondered if more intensive monitoring by highly trained nurses might avoid some of these deaths. So we thought the most efficient way to have this done on the ward would be



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2 to have one room set out as a monitoring room or an
3 intermediate Intensive Care room in which there would
4 be very sophisticated monitoring equipment, and it
5 would be manned by nurses who were specially trained
6 to look for the signs of slight variation in people's
7 clinical status, and this was discussed in great
8 detail with all the people in that committee and was
9 eventually presented to the Board of Trustees for
approval.

10 Q That would have been some time
11 after March 12th?

12 A Yes.

13 Q The date of your report?

14 A Yes.

15 Q And we have heard from Dr. Rowe
16 in his evidence that this unit is in fact in place on
the ward at the present time?

17 A Yes.

18 MS. CHOWN: Thank you, Doctor.

19 THE COMMISSIONER: How is it working,
20 Doctor?

21 THE WITNESS: Well, we haven't had as
22 many deaths as we had then. I think the care of the
23 patient on the ward is better than it was before we
24 had that.
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THE COMMISSIONER: It started I believe - did it start in November of last year? It doesn't particularly matter but have you had it long enough for a try - I don't know that that is any part of my mandate to consider?

THE WITNESS: I think that perhaps it was before that. I can't remember the starting date.

THE COMMISSIONER: The date was given.

MR. LAMEK: It was November.

THE COMMISSIONER: I thought it was.

THE WITNESS: It was November, but I think it has been in operation long enough to suggest that it is an important part of our care on the ward.

THE COMMISSIONER: Anyway you intend to keep it I take it?

THE WITNESS: Oh, we certainly are.

THE COMMISSIONER: Yes. I interrupted you. You don't want to follow that any further?

MS. CHOWN: No I don't, thank you, Mr. Commissioner.

THE COMMISSIONER: All right.

Mr. Brown?

MR. BROWN: Mr. Commissioner, Mr. Sopinka has a few questions of this witness. He is involved in a trial this afternoon and expects to



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be through tomorrow so I wonder if we could drop down
the list?

THE COMMISSIONER: If he is still here.

MR. BROWN: Yes.

THE COMMISSIONER: But if he is not --

MR. BROWN: We will take our chances.

THE COMMISSIONER: -- the time will
come I suppose when I will call on Mr. Sopinka to call
evidence and he can perhaps call him back at that time.
But I think you have to understand that if the witness
is --

MR. BROWN: I certainly appreciate
scheduling difficulties.

THE COMMISSIONER: Yes.

MR. BROWN: And the expectation he
may return tomorrow morning ...

THE COMMISSIONER: Yes.

Mr. Strathy?

MR. STRATHY: Mr. Commissioner, I am
going to ask this once your indulgence as far as
cross-examination is concerned. I had not anticipated
two things: firstly, that we would be through with
this witness today and perhaps more importantly that
he would be covering a number of particular patients,
19 in all, that this witness was involved in.



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I would like at least to have the evening to review the charts of those patients which are in my office and to review some of the transcripts as well.

With your indulgence - I know you are not anxious to keep the witness here any longer than necessary, but I think you appreciate the problems we have as well.

THE COMMISSIONER: Yes. Well, I hear what you said.

Mr. Hunt?

MR. HUNT: I will go after the break then, Mr. Commissioner.

THE COMMISSIONER: You don't want quite as much indulgence.

Anybody want to go now?

MR. SHINEHOFT: I am prepared to conduct my cross-examination of this witness.

THE COMMISSIONER: All right.

CROSS-EXAMINATION BY MR. SHINEHOFT:

Q Doctor, I am going to limit my questions to you in regard to the infant Kevin Pacsai, and from your evidence that you have given you were ward chief during his stay in Hospital; is that correct?

A. Correct.



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Q I understand that he was not
there very long. Is that also correct?

A Yes.

Q Do you recall how long exactly
he was there?

A No. I am sorry. He came in one
afternoon and he died the next day. I am not sure how
many hours.

Q I have been told it was less
than 19 hours?

A Yes.

Q Would you agree with me, Doctor?

A I think that might be fair.

Q On his admission, Doctor, did
you examine this baby?

A I didn't examine him completely,
but he had been examined by the resident and I believe
it was Dr. Schaffer and he felt that the patient was
stable. The patient had had a history of arrhythmia, and
the child was hooked up to a cardiac monitor. I saw
the electrocardiogram on the monitor, and it was
perfectly normal, showing no evidence of having any
arrhythmia, and I went round the ward just to look at
the patients before I left that evening and he was in
no distress. So I decided to defer detailed examination
until the next day.



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Q Okay. Well let me see if I understand your involvement. Do you recall the time of day that this patient came into the Hospital?

A No, I don't know specifically, but I saw him in the evening just before I left.

Q Okay. And you examined him at that time?

A I didn't do a detailed examination but I saw him in his bed and looked at his monitor, and I was given the assurance from the residents and Fellow who examined him that he was stable.

Q Would that resident be Dr. Costigan? Was he the Fellow?

A No, it would be Dr. Schaffer was the cardiac Fellow, and I can't remember who the resident was.

Q How long did this examination take, Doctor? How long did you look at him for?

A Oh, two or three minutes I think. I was in the room and I was looking at several patients.

Q And that is the one and only time that you did see this patient?

A Actually seeing the patient, I



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had a summary of his history from the doctor, from
the resident.

3

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Q But you just saw him the one
time?

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A Yes. Well, no, I saw him in
the morning, of course, after he had had his arrest
and I saw him in the Intensive Care. I saw him at
that time.

7

8

9

Q I understand he died in the early
hours or he died about 10 o'clock in the morning; is
that correct?

10

11

12

A Yes. And I examined him at
that time more completely than I did at night.

13

14

Q Am I correct in saying, Doctor,
you examined him twice?

15

16

A Yes.
Q Once on his admission and once
after he had arrested for the first time?

17

18

A And was down in the Intensive
Care.

19

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Q That is where the second
examination took place?

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22

A Yes, that's right.

23

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Q And were you examining him or
did you examine him by yourself or with any of the
other doctors?

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A. Oh, yes, Dr. Shaffer was there and I am sure there were other doctors in the Intensive Care as well.

Q. And did you check his heart monitor at that time?

A. Oh, yes. Yes.

Q. What did it show in terms of abnormalities?

A. Well, he had very chaotic rhythm, going in and out of ventricular fibrillation which is a lethal type of rhythm, and the sort of thing that occurs in people prior, shortly prior to their death.

Q. Is that one of the symptoms of digoxin intoxication?

A. It can be, yes.

Q. And did you attend at his post mortem?

A. No, I did not.

Q. Did you see a copy of the post-mortem report?

A. I think I eventually did.

Q. There were two I recall. One was a preliminary and one was a final autopsy report.

Did you examine either or both of those documents?



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A. Eventually I did, yes.

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Q. And would you care to comment

4

on the cause of death as stated in the autopsy report?

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A. I think that the final autopsy

6

report suggested that digoxin was involved in his death.

7

Q. When you first saw that report

did you agree with it?

8

A. I think - I felt that that is

9

conceivable with the cause of his death.

10

Q. I didn't ask you that, Doctor.

11

I said did you agree with it?

12

A. I didn't do the post mortem. I

13

couldn't agree to something that I didn't do, but I

saw their results.

14

Q. You have just indicated in your

15

evidence in chief that a post mortem is a very

16

important thing to ascertain the cause of death.

17

A. Yes.

18

Q. And this is one reason why in

19

almost every case you ask for this so that you can

confirm your clinical diagnosis.

20

A. Yes.

21

Q. Is that correct?

22

A. That is correct.

23

Q. So that in this particular case

24

a post mortem was done?

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A. Yes.

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Q And the results indicated -
their finding was that this baby died of digitalis
intoxication.

5

A. Yes.

6

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Q And my question very simply is
do you agree with that?

8

9

A. Yes. This is what the pathologist
said he died of.

10

11

Q And do you have any reason to
disagree with that finding?

12

13

A. And I think that this is
reasonable that he could have died from that.

14

15

16

17

Q I didn't ask you that, whether
it is reasonable that he could die of that. I said
do you agree with the pathologist and the coroner who
prepared that report which indicated that cause of
death?

18

19

20

21

A. Well, you see there are other
complicating things in this particular case, and as you
well know Dr. Bain has reviewed this case in detail
and has suggested that there may be some other cause
for his death.

22

23

24

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Q Now I want to talk to you about
that.



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Fowler, cr.ex.
(Shinehoft)

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MR. SHINEHOFT: Would this be an
appropriate time to break? I am prepared to go on.

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THE COMMISSIONER: No, no. We will
take 15 minutes now.

5

--- Short recess.

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--- on resuming.

THE COMMISSIONER: Yes, Mr.
Shinehoft.

MR. SHINEHOFT: Q. Doctor,
I was wondering if you could take a look at Kevin
Pacsai's hospital record. I believe it is Exhibit
106, page 94. There is what I think is called a
preliminary autopsy report.

A. Yes.

Q. And could you indicate to
me what it says as far as the cause of death?

A. Do you want me to read what
this says? It says:

"The immediate cause of death is
digoxin digitalis toxicity post
mortem level of 26."

Q. Okay. Now, I understand,
doctor, that you got a copy of that report, did you
not?

A. I think I must have. Any
patient that is admitted under me, I eventually see
the post mortem report.

Q. Do you recall, doctor, seeing
specifically that post mortem report?

A. I can't say definitely that I



1
2 have seen that --I have seen it many times in review-
3 ing this chart, but I don't remember seeing it when
4 it first came.

5 Q. Would it be within the first
6 month of his death that you would have seen that
7 report?

8 A. No. I couldn't say. As I
9 say, I have seen it in reviewing the chart, but I
10 can't remember specifically receiving it, just when
11 that occurred, when it came to my desk.

12 Q. Well, did you form an
13 opinion when you first received that report as to
14 the cause of death of that child?

15 A. This report suggests that it
16 is due to digoxin toxicity.

17 Q. And what was your opinion as
18 to cause of death?

19 A. And I had to accept that on
20 the basis of the information we had at that time, that
21 it probably was due to digoxin toxicity.

22 Q. And then you fairly indicated,
23 doctor, that subsequent to that, Dr. Bain was retained
24 by the Hospital to prepare a report; is that correct?

25 A. Yes.

Q. And have you had a chance to



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examine that report?

A. I have, not in detail, but
I have read some parts of it.

Q. And I understand he is a
pediatrician of great experience?

A. Yes.

Q. And do you know if he is
an endocrinologist?

A. Yes, he is. That is his
special interest.

Q. His special interest is that?

A. Yes.

Q. Do I gather from that that
you are not an endocrinologist, doctor?

A. No, I am not.

THE COMMISSIONER: I'm sorry, what
is an endocrinologist?

THE WITNESS: It is an expert in
endocrine diseases, like diabetes and that sort of
thing.

THE COMMISSIONER: Oh, yes.

MR. SHINEHOFT: Q. As well as
kidney function and renal function, as well?

A. Well, renal people, that is
another sub-speciality. Dr. Bain has a special



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interest in endocrinology, which involves the
adrenal glands, among other glands.

4

Q. Which was eventually what he
posed as a possible problem with this young infant?

5

A. Yes.

6

7

Q. What is called a transient
adrenal insufficiency?

8

A. Yes, that is right.

9

10

Q. Now, I just want to ask you
one or two questions about the report.

11

12

Do you know the circumstances under
which that report was prepared?

13

A. Which report? This one?

14

Q. The Bain report.

15

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A. Oh, yes. I understand that
Dr. Bain was asked to review independently, not being
a member of the Cardiac Division of the Hospital, to
look objectively at a series of patients who died and
make a report of his analysis at that time.

19

20

21

Q. Do you know if he was asked
to take into consideration the question of digoxin
or to look at it from purely a clinical perspective?

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A. I am not sure what the
reference was that was given to him to make that
report.



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Q. Now, you have indicated,

doctor, that you have read Dr. Rowe's evidence and
that you agree, in substance, with Dr. Rowe's evidence.

A. Yes.

Q. Did you read Dr. Rowe's
evidence as it relates to my examination of him in this
area?

A. I don't know that I have read
that in the transcript.

Q. If I could just paraphrase
it as best I can.

Dr. Rowe has indicated that he is not
an expert in endocrinology.

A. No.

Q. He has further stated that,
at the time of Kevin Pacsai's death, he was of the
opinion that death was caused by digitalis intoxication.

A. Yes.

Q. But that, subsequent to that,
when Dr. Rowe prepared his report, his opinion may have
changed or may have shifted.

A. Yes.

Q. But that he is not prepared to
give an opinion but is prepared to rely on what Dr.
Rowe says because he -- I mean Dr. Bain says, because
Dr. Bain is an endocrinologist.



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A. Yes.

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Q. Do you agree with that?

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A. Yes.

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Q. So, would you agree that if --

6

and Dr. Rowe also says that, as far as he is concerned,
the cause of death was either digitalis intoxication
or this other condition that Dr. Bain refers to --

8

A. Yes.

9

Q. -- as transient adrenal

10

insufficiency.

11

A. Yes.

12

Q. Do you agree with that?

13

A. Yes.

14

Q. And that there are no other

15

possible explanations as to this child's cause of
death?

16

A. Well, I think it is con-

17

ceivable there may be some other explanations, but

18

these are the two that seemed to come out of the

19

investigations that were done.

20

Q. I believe he went so far as

21

to say if there weren't this transient adrenal

22

insufficiency, he would be prepared to accept that this
baby died as a result of digitalis intoxication.

23

Are you prepared to accept that?

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A. Well, I think -- Yes, I think it could be one of the two. I think we would have to bow to the experts in terms of the one diagnosis.

As far as the digoxin is concerned, we have evidence to suggest that that was the cause of death, from his digoxin level.

Q. Are you prepared to agree with me, doctor, that if it is not one, the likelihood is that it is the other?

A. It could be the other, yes.

Q. I didn't say it could be; I said it is the other.

A. I don't think there is anything in Medicine that is 100 per cent; so, I think I have to leave it open, that there could be something else.

Q. Can you offer me any other explanation today?

A. No, I can't, today. It is likely one or the other.

Q. And if it were shown that it was not this transient adrenal insufficiency, then you would agree that, in all likelihood, it would be the other?

A. Yes. I think that is



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reasonable, but I think that will be very difficult
for anybody to prove that it isn't the other.

Q. Let me ask you this, doctor.
Are you familiar with that condition?

A. Yes, I am now.

Q. Were you at the time?

A. No, I wasn't. But I am not an
endocrinologist.

Q. But you must see children
with all different kinds of problems and diseases
throughout your tenure as a medical doctor?

A. Yes.

Q. Have you ever seen a child
that exhibited that condition before?

A. No. It is thought to be
quite a rare condition, but I am not exposed to
people with that type of illness.

Q. So, am I correct in saying
you had never heard of this condition before Dr. Bain
made his report?

A. Yes, that is true.

Q. If I can discuss with you,
doctor, what you consider to be therapeutic dosages of
digoxin.

In 1981, during the epidemic period,



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what did you use as a general guideline for that level?

A. We liked to keep the dig,
level in the serum after a person has been digitalized
with the sample taken at least six hours after the
last dose, digoxin should be below 2.

Q. Below 2?

A. Yes.

Now, mind you, there are lots of
people that have levels that are slightly more than
that that are acceptable, but we attempt to aim for
having a level below 2.

Q. You also, as well, I believe -
and Dr. Rowe has indicated - that you look at the
effect of the drug as well as the level that the drug
shows?

A. Yes.

Q. Would you not agree with me,
doctor, that a level of greater than 10 ante mortem
and 25 post mortem is an abnormally high level?

A. Yes.

Q. Would you agree with me that
it is outside the therapeutic range?

A. Yes.

Q. By several times?

A. No, but it is above the



DD10

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2 usual therapeutic range. There is a grey zone of
3 toxicity for digoxin in which you can have levels
4 as high as 4, though more in people who show no
5 signs of digoxin toxicity at all.

6 Q. But you would agree with me,
7 doctor, that if you strive to have a level of 2 or
8 less and if a baby were to have a level of 10 or more,
9 that would be several times the ideal therapeutic
level?

10 A. In the average case, it is.

11 Q. And I believe you answered
12 this question to Mr. Lamek. Would you also agree
13 with me that it is unlikely that that level could
be achieved through the therapeutic dosage?

14 A. Unless there is a mistake
15 in giving, taken and giving it.

16 Q. Assuming there is no mistake
17 and the normal levels are given, proper amounts are
18 given, would you agree with me that it is unlikely
19 that that level could be achieved through therapeutic
20 dosages?

21 A. Yes. If the proper dose
22 was given, then it is unlikely that you would have a
23 level of 10, unless the child was in renal failure or
24 something like that, which I don't think this patient
25



1 was.

2 Q. You examined his BUN level?

3 A. Yes.

4 Q. And as I understand it, it was
5 perfectly normal?

6 A. Yes.

7 Q. Is that not correct?

8 A. Yes. I didn't look it up but,
9 at any rate, if you find it is normal, I would agree
10 with that. So, his kidneys are probably working well.

11 Q. So, would it be fair to say,
12 doctor, again, that that level could not be achieved,
13 assuming that his kidneys were functioning normally,
14 through the giving of therapeutic dosages?

15 A. Unless the level was taken
16 just a few minutes after giving a therapeutic dose,
17 and I don't know when this level was taken. If this
18 was a routine dig. level taken on the ward at least
19 six hours after his dig, then that is the situation.

20 Q. And would you not be led
21 to the conclusion that it would have to be an
22 intentional overdose or an intentional administration
23 of the drug to achieve that level?

24 A. No. It could easily have
25 been an error.

Q. I am saying if you conclude



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that it wasn't an error.

A. No. Well, it can be an error of somebody giving it to the wrong child and so on. If you give the appropriate dose to that child, then you shouldn't have a level that high.

Q. And if there has been no error committed, either in the amount that is given to the child or if the child to whom the amount is given is the wrong child, and if the sample is taken at the proper time, would you agree with me that, in order to achieve that level --

A. Yes.

Q. -- there would have to be a deliberate administration of the drug?

A. Yes. I think if you have all those things that we have outlined, then I think you would have to say that this was a deliberate overdose.

Q. I understand, doctor, that dealing with this specific baby, you made a report to Dr. Carver and you checked out and examined this very thing; is that not correct?

A. Yes.

Q. You, I believe, stated you spoke to the Head Nurse about the amounts of digoxin that were used?



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A. Yes.

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Q. And you telephoned the

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pharmaceutical company that supplied the drug to make
5 sure there was not a contaminated batch; is that
6 correct?

6

A. Yes.

7

Q. You reported back to Dr.

8

Carver?

9

A. Yes.

10

Q. And in that report, you

11

indicated that there was no administrative error as
12 far as the drug is concerned?

12

A. That we could detect from
13 our investigation.

14

Q. And were you reasonably

15

satisfied that you had done everything you could to
16 ascertain whether an error had, in fact, been
17 committed?

18

A. Yes.

19

Q. You also indicated the

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circumstances wherein you reported this case to the
21 Coroner. Now, were you present, doctor, to speak to
22 the parents of this child after the child's death?

22

A. Yes. I went in to speak to

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24 them, but this was the reason that I was upset about the

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whole episode and I mistakenly wondered if there had been some child abuse involved in this child, because he had only been in the Hospital for a few hours. Then, of course, it became obvious that this was not a case of child abuse but something that had happened during his hospital stay.

Q. What led you, doctor, to make this assumption, or have this idea, can you tell me that?

A. Well, the behaviour of the father was unusual.

Q. Well, I understand he was upset; is that correct?

A. Much more than upset. He was almost irrational.

Q. Well, is it not the case, doctor, that upon this baby's arrival to the Hospital, the baby was relatively normal?

A. Well, this baby was very sick and almost died in the other hospital.

Q. I didn't ask you about that, doctor. I asked you about this baby's arrival at the Hospital for Sick Children.

Would it be characterized as being almost normal?



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A. When I viewed him, he looked relatively well.

Q. His heart monitor showed normal?

A. Yes.

Q. He didn't exhibit any particular problems; he was voiding well and nursing well; is that not correct?

A. Yes.

Q. Would you not characterize his death as sudden and unexpected?

A. Yes.

Q. And was his father told about his condition on his arrival?

A. I didn't tell him about what happened, but I am sure that probably somebody told him that he was very ill and had to be brought down to Intensive Care; so, he was warned that he was very sick.

Q. I mean, doctor, on his arrival at the Hospital, which you characterized, I believe, as relatively normal. Was his father informed of that?

A. I didn't talk to the father at all. When I examined the patient, the father had



1
DD16 2 left but someone else surely must have explained to
3 him what his situation was. And, of course, the
4 reason that he was transferred to our Hospital was
5 that there was a concern that he was still ill and
6 having the effect of a severe arrhythmia, and that
7 is why he was sent to us for further assessment.

8 Q. But that arrhythmia, and
9 correct me if I am wrong, doctor, had stabilized
10 prior to his admission to the HSC?

11 A. At the time I saw him, he
12 was in sinus rhythm but he had had a lot of difficulty
13 with arrhythmias when he was in the other hospital,
14 and that is why he was transferred, and that is why he
15 was on the monitor, because we were expecting that
16 he may develop some further problem.

17 Q. I appreciate that, doctor.
18 You don't admit well babies. Obviously, the baby was
19 there for a reason.

20 You indicated as well that, when
21 you first examined this baby, he was relatively okay.

22 A. Yes.

23 Q. And did you review his
24 transfer note prior to examination?

25 A. Yes.

Q. I believe it was a Dr.



DD17

Malcolmson?

A. Yes.

Q. And that note indicated some relative stability just prior to --

A. Just immediately. But, again, this is the reason that he was sent, because he had a lot of irregular rates prior to that, and they were concerned about his rhythm, and we were also concerned about that.

Q. You are aware, of course, that, at autopsy, his heart was perfectly normal?

A. Yes. There was no anatomic abnormality.

Q. There was nothing wrong in that respect with his heart?

A. Yes. He had had an electrical problem that was very severe that almost caused his death a little while before, however. So, there is a difference between anatomically normal and completely normal, and he certainly doesn't have a completely normal heart because he had a heart rate of 230 and he almost died and went into shock as a result of that; so, he doesn't have a normal heart but he has an anatomically normal heart at post mortem.

Q. Is it your evidence, doctor,



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2 that the reason why you reported this case to the
3 Coroner, or one of the reasons why you reported this
4 case to the Coroner, was the father's reaction to
5 being notified of his son's death?

6 A. Yes.

7 Q. Were there any other reasons
8 why you chose to notify the Coroner?

9 A. Well, I think the underlying --
10 the other reason, of course, is that it was rather
11 sudden, the fact that he had that arrest on the ward,
12 and that would be another reason but, at that particular
13 instant, I was most concerned about the father and his
14 reaction. I have been in pediatric practice for many
15 years and I have seen all sorts of parents under all
16 sorts of stresses, and this was very unusual.

17 MR. SHINEHOFT: Thank you very much,
18 doctor. I have no further questions.

19 THE COMMISSIONER: Yes. Thank you,
20 Mr. Shinehoft.

21 Now, Mr. Hunt, do you want to --

22 MR. HUNT: Yes, Mr. Commissioner.

23 CROSS-EXAMINATION BY MR. HUNT:

24 Q. Doctor, when you heard about
25 the level of digoxin in the samples taken from Baby
Estrella, am I correct that that is the highest level



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you had ever heard of until that point in time?

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A. Yes, that is correct.

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Q. And that was sometime during

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the second week of March?

6

A. Yes.

7

Q. So that would be from

8

March 14th on?

9

A. Yes.

10

Q. The 7th to the 14th?

11

A. Yes. I can't tell you when

12

exactly I received that report, but sometime in
March, early March.

13

Q. I believe you described

14

those levels on another occasion as, to you, unthinkable?

15

A. Yes. It was outside my

16

experience in clinical medicine.

17

Q. And then, sometime later

18

during the month of March, I think you said on March
18th, you received word of the level in Baby Pacsai?

19

A. Yes.

20

Q. Which were around the 25

21

nanogram range?

22

A. Yes.

23

Q. Is it safe to say that, aside

24

from the Estrella reading, the level of digoxin in Baby

25



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DD20 2 Pacsai was the highest level that you had encountered
3 in your clinical experience?

4 A. Well, I can't remember that
5 because that was low enough that I felt that that
6 could be a real level at that time, with my knowledge
7 of digoxin metabolism, and that is the reason that I
8 felt that this was a case we had to pursue more
9 vigorously than the other case, which I have said
10 many times, did not seem to be a reasonable answer at
all.

11 Q. Well, do you recall giving
12 evidence at the preliminary inquiry into the charges
against Susan Nelles? Do you?

13 A. Yes.
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Q. And on the 17th of February, 1982 before His Honour Judge Vanak you were asked this question - looking at Volume 19, page 30 beginning at line 17:

"Q. All right. The Baby Pacsai had a reading of 25 nanograms. Is that also extremely high a level?

A. Very high, much higher than any other except for Estrella and some of these other patients. I had never seen a level of 25 in clinical practice and I have been doing cardiology for all these years."

Do you recall giving that answer?

A. Well, I don't remember that specifically but I must have said that, yes.

Q. Are you prepared to stand by your answer on that occasion?

A. Yes.

Q. So that for the second time within a period of approximately two weeks in the month of March in 1981 you were given information about a level of digoxin in a patient that was as high or higher than anything you had ever seen in your clinical practice?



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A. I think there must be a differentiation however between Estrella and Pacsai because Pacsai, we know that it was during life and it was in the level that one could conceivably be a true level and I think Estrella is an entirely different situation and even now I'm not completely convinced that those levels are meaningful.

Q. Well, you have indicated you put Estrella out of your mind almost immediately?

A. Yes, but not Pacsai.

Q. Not Pacsai?

A. No.

Q. But Estrella it was unthinkable you put it out of your mind almost immediately?

A. Yes, yes.

Q. Then within two weeks you receive information with respect to Pacsai which you considered to be much more reliable?

A. Yes.

Q. As much as it was taken during life?

A. Yes.

Q. And nonetheless was, aside from Estrella, as high as anything you had encountered before?



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A. Yes.

Q. And is it your evidence that notwithstanding the time period within which you received this information you did not again connect the Estrella reading to the Pacsai reading until Saturday, March the 21st?

A. Yes, that's correct.

Q. And that was some time prior to going to the meeting with the coroner?

A. Yes, as soon as I pointed out that because of the pathologists, that they were concerned enough in having these two levels that we should have an urgent meeting with the coroner and of course then that is the first time that I ever thought of the two together of being a meaningful circumstance that we had to explore.

Q. All right. Now, when Baby Pacsai died on the 12th of March, as you have indicated to my friend Mr. Shinehoft he had been in the hospital about 18 or 19 hours by that point in time?

A. Yes.

Q. When he arrived, is it not fair to say that you would have predicted a normal life for Kevin Pacsai after he had received treatment



1
2 for the particular arrhythmia that he was suffering
3 from?

4 A. No, I wouldn't at all give him
5 that rosy a prognosis until I watched him for a while.
6 That was a near fatal tachycardia. He seemed to
7 have even more acute reaction to the tachycardia
8 than many infants with that and he then continued to
9 have irregularities of his heart in the other hospital
10 and I would be very concerned that this child is
11 going to continue to have attacks of tachycardia and
12 that he may have serious problems in the future and
13 I wouldn't at that stage tell him I would give him
14 a perfect prognosis in that child.

15 Q. Well, would you not have
16 considered that it would have been the unusual case
17 if he hadn't responded to the treatment that was
18 going to have been given and to have led a normal
19 life after that?

20 A. Yes, that is the usual course.

21 Q. Usual course is to respond to
22 the treatment and lead a quite normal life after that?

23 A. Except that he had a more acute
24 reaction to his tachycardia which may or may not be
25 due to other problems that we have dealt with before.

Q. Now, you are indicating here,



1
2 I want to be clear, that you would not have at the
3 point in time when he arrived at your hospital,
4 projected for him a positive prognosis of a normal
5 life. Is that what you are saying?

6 A. I would be, if I watched him
7 for a week or two in the hospital and everything
8 was stable, at that time I would perhaps give
9 him a good bill of health, but at the time he was
10 admitted to hospital, it was thought that he was
11 still having problems and I thought, I would have
12 thought, that we would have had to be a little guarded.

13 Q. Let me refer you again to
14 the preliminary inquiry of Miss Nelles. I am
15 referring again to your evidence on February 17th,
16 1982 before Judge Vanak and at page 24 you were asked
17 this question.

18 THE COMMISSIONER: Is this the same
19 volume?

20 MR. HUNT: Yes. I am sorry, it is
21 Volume 19, Mr. Commissioner.

22 THE COMMISSIONER: Thank you.

23 MR. HUNT:

24 "Q. All right. We have the medical
25 record here for Kevin Pacsai. I don't
know whether you need it, Doctor, but
I will just put it in front of you in



1
2 "case you do. That is Exhibit No. 28.
3 You might refer to that if you wish as
4 we go along.

5 What was this child suffering from?

6 A. This child had been originally
7 admitted to the hospital in McMaster
8 having, with a very rapid heart rate
9 reported to be in the region of 300
10 a minute with a normal heart rate for
11 a baby being 120 to 140. He was
12 desparately ill at that time and they
13 were able to, using drugs, stop, bring
14 his heart rate down to normal level.
15 At that time they had the feeling that
16 this child didn't have any anatomic
17 disease. In other words, he didn't
18 seem to have a hole in the heart or
19 an abnormal valve and he just seemed
20 to have a functional problem in which
21 he had a rapid heart rate, and this is
22 seen from time to time. The best drug
23 to stabilize the heart rate is digoxin
24 in appropriate doses. Many of these
25 children by the age of a year outgrow
that tendency to have rapid heart rates



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"and they then seem perfectly normal.
If there is nothing else wrong
anatomically in the heart they will
lead a normal life after that.

Q. Had that been the prognosis for
Kevin Pacsai?

A. That would have been my
projected prediction with him. Of course,
every once in a while we see a rather
unusual case which doesn't follow that
close but I would have thought that
this might have happened with him."

Sir, do you recall giving those
answers to those questions?

A. I still stand by that, that in
the usual case we have a usual prognosis but in the
unusual case you do have problems.

Q. And at the point in time when
he entered your hospital your projected prediction
with him would have been he would have been the usual
case?

A. Well, I don't know how I could
make that prediction never following him. As I say,
if I had seen him two weeks after and he was still
very stable, then I would say you probably are going



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to follow the usual course. In his particular case I would be, until I had a chance to follow him, I would just reserve my judgment.

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Q. Then you don't stand by your answer that at the time of his admission it would have been your projected prediction with him that he would have been the usual case?

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A. Yes. He could have been the usual case but he is an unusual - he might be unusual and not take that and, so ...

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Q. No question that he might, but in your evidence before Judge Vanak I suggest that you indicated that your projected prediction for him would have been he would have followed the normal course?

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A. Yes, the law of averages would suggest that he might.

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Q. When he died within 19 hours of entering your hospital you were surprised?

19

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A. Yes, I was surprised. I wasn't surprised at that instant but I was surprised that he had a cardiac arrest earlier in the evening.

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Q. You certainly considered that arrest as sudden and unexpected?

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A. Yes.



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Q. And you indicated that perhaps, or you might well have referred that case to the coroner in any event?

A. Yes.

Q. But that at the time it was the reaction of Mr. Pacsai to his son's death that caused you to notify the coroner?

A. Yes.

Q. Now, what precisely about it was it that caused you to consider that that was a reportable case?

A. Because I was concerned that we might have been dealing with child abuse which, in actual fact, it did not turn out to be in that case, but as you are well aware it is illegal for a physician if he thinks there is possible child abuse to not report it to the appropriate authorities. If the child is alive you phone the Children's Aid and if he is dead you phone the coroner.

Q. Well, certainly physicians have a duty to report deaths in a number of situations and we have considered that, but certainly there was nothing about the child itself that suggested child abuse at that time?

A. No, no.



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Q. It was strictly the father's reaction?

A. Yes, that's right.

Q. The father was quite ---

A. Irrational.

Q. --- grieved by the loss of his son?

A. Yes, but in an unusual way.

Q. Well, I take it he didn't hit anybody?

A. He almost did. He was banging his hands against the wall of the waiting room and I was concerned about the safety of the nurse and Dr. Schaffer in the room because he was irrational at that time and this is an unusual reaction for a person to take when he's ...

Q. Well, what is it that you see as irrational about that?

A. Because this is not the way parents usually behave when they learn of their children's death?

Q. They don't usually express their grief by banging the wall?

A. Yes, that's right.

Q. All right. So, in any event, as



1
2 a result of that you notified the coroner virtually
3 immediately?

4 A. Yes.

5 Q. Now, if Dr. Rowe was under the
6 impression that the reason the coroner was notified
7 was that twofold, that because there was no explanation
8 for his death at the time of it?

8 A. Yes.

9 Q. And because of the father's
10 reaction?

11 A. Yes.

12 Q. He would be in error?

13 A. No, that's not true. We have
14 touched on both of those reasons for getting in touch
15 with the coroner.

16 Q. Now, you are the one who
17 reported it?

17 A. Yes.

18 Q. And as far as I understand
19 the only thing in your mind was the father's
20 irrational, as you call it, irrational, as you call
21 it, irrational behaviour?

22 A. No, and the fact that the child
23 died unexpectedly and I discussed it all with Dr.
24 Rowe and we jointly felt that under the circumstances
25 we should notify the coroner.



EE-2-1

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Q. Well, I didn't take from

your evidence, sir, that you have given to this point in time that the sudden and unexpected nature of the death had anything to do with your decision to notify the coroner. You indicated you might well have notified him anyway?

A. Yes.

Q. But that you notified him because of what you categorized as his father's irrational behaviour?

A. Yes.

MR. STRATHY: I'm just going back in fairness to the witness at the end of Mr. Shinehoft's examination. The witness said that the father's reaction was one of the reasons he reported it to the coroner but he also reported it because the arrest was sudden.

MR. HUNT: Well, I took from that that the witness said that he also could have reported it because of that but the reason he reported it was because of the father's reaction.

MR. STRATHY: Well, I think my notes are fairly clear. One of the reasons was the father's reaction and also because the arrest was sudden.



EE-2-2

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2 MR. HUNT: Well, let me refer you
3 again, perhaps we can clear it up this way, Mr.
4 Commissioner, to your evidence at the preliminary
5 inquiry, again Volume 19. It is on February 17th,
6 1982 before Judge Vanak. It is page 30 and 31:

7 "Q. All right. In any event,
8 after Baby Pacsai died you were
9 the one responsible for calling in
10 the coroner, is that correct?

11 A. Yes.

12 Q. And how did that come about?

13 A. Well, I went into the waiting
14 room which I always do if I have
15 a very ill child that looks like
16 it is going to die to prepare the
17 parents so that it isn't too much
18 of a shock when the patient
19 actually does die. I went in and
20 the father of Pacsai was in a
21 very agitated state and he seemed
22 to be very concerned about this
23 thing and had a very unusual
24 reaction. He was almost irrational.
25 He was banging his fist against
the wall and shouting out and I was



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very concerned at the time for the safety of the nurse and Dr. Schaffer who were in the room but they assured me that they were all right but I felt that this was a highly unusual reaction of a parent to a child who is about to die and who did eventually die a few minutes later. I was very concerned because there was some - I was concerned that maybe this might be a case of child abuse and I thought that even though it wasn't legal that I get in touch with the coroner I felt that I should discuss it with him.

Prior to me phoning the Coroner's Office I discussed it with Dr. Rowe who is the Director of our unit and he felt that it was a reasonable thing to do and then I had a conversation with Dr. Teperman.

Q. You called Dr. Teperman ?

A. Well, I phoned the Coroner's



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Office and they said he would be
the one who would be looking after
it."

Now, do you recall that series
of questions?

A. Yes.

Q. And those answers?

A. Yes.

Q. Would you agree with me
that there is no suggestion there that the sudden
and unexpected nature of the death had anything to
do with the reporting of this case to the coroner?

A. Well, I think that's true
from that evidence but I think there are other
reasons for getting in touch with the coroner and
I think that we were of course anxious to have a
post mortem examination, as we have talked about
before, to see whether in fact the child had an
anatomically normal heart which would be, we thought,
clinically he had and that would make it even more
urgent to have the coroner involved in the
investigation.

Q. The coroner would become
involved because there was a need for a further
investigation of this death?



EE-2-5

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A. Yes.

Q. Now, as of the 18th of March when the levels in Pacsai became known, there was then a significant inquiry or investigation carried out by yourself and others I presume?

A. Yes.

Q. To try to get to the bottom of it?

A. Yes.

Q. And that involved checking with various nurses to see whether the dose of digoxin administered was the appropriate one?

A. Yes.

Q. It involved going so far as to check the stock of digoxin in the Hospital?

A. Yes.

Q. And it involved checking with the manufacturer of lanoxin to determine whether there had been any problems with the particular batch that you were using?

A. Yes.

Q. Is that right?

A. Yes.

Q. Is that type of an inquiry or investigation carried out often?



EE-2-6

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A. No, very rarely.

Q. Unprecedented?

A. I don't know about that, but I am sure that there are other situations in the Hospital where that type of an investigation is done, but of course you must remember that this is now, the coroner is notified about this case and has been notified for some days and this sort of thing of course can be done better by coroners and the police.

Q. I'm not being critical, I'm just asking you, is this an unprecedented type of investigation being carried out in the Division of Cardiology?

A. I can't say. I can't remember in recent times the same sort of a thing occurring, but it may well have happened, I don't remember.

Q. All right. So, is it fair to say that in the days after the levels in Pacsai became known that the concern was starting to grow in a very serious way over digoxin and the role that it may have played in some of the deaths on the ward?

A. Yes, I think that this is



EE-2-7

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2 true, certainly that digoxin was implicated in the
3 deaths of Pacsai. So, we still, I certainly didn't
4 think of all these other cases and wondering if
5 there are some other, that there is a relationship
6 between all of these other cases, but at that
7 particular time I was concerned only with Pacsai
8 and it wasn't until the following day or the
9 following two days that I realized that there was
10 another - the Estrella business and then that
11 started the whole thing.

12 Q. I'm not suggesting at that
13 time you became aware or thought about any of these
14 other deaths, all I am asking you is if it is not
15 fair to say that from, at least the 18th on there
16 was major concern on the part of yourself and some
17 of the others about the role that digoxin may have
18 played in the death of at least Kevin Pacsai?

19 A. Yes, that's right.

20 Q. And it would appear from
21 other evidence we have had that the concern was
22 not just with the Division of Cardiology but also
23 in the Pathology Department? The doctors had
24 already put together the readings of Estrella and
25 Pacsai?

A. Yes.



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Q. And themselves notified
the coroner on March 20th?

A. Yes.

Q. Is that your understanding?

A. That's my understanding.
I wasn't involved in the Pathology Department at
all but I understand from others that this is what
happened.

Q. All right. Now then, we
come to Friday night and early Saturday morning,
which is the night of the 20th, the morning of the
21st.

A. Yes.

Q. Well after the investigation,
the inquiry into the role digoxin is playing and
has started and we have the death of Allana Miller.

A. Yes.

Q. You found out about that, as
I understand it, on Saturday morning?

A. Yes, early on, yes.

Q. And you were phoned at home?

A. Yes.

Q. Did you go into the
Hospital immediately or some time later?

A. No, I came into the Hospital



EE-2-9

1
2 some time later.

3 Q. Are you able to recall
4 whether you suggested that there be levels of
5 blood taken to determine - samples of blood taken
6 to determine digoxin level?

7 A. No, I have no recollection
8 of doing that and I suspect that that was done by
9 Dr. Costigan or one of the residents on the ward.

10 Q. And would it be fair to
11 say that the fact that that was done early in the
12 morning on the 22nd is another indication of how
13 sensitive people were becoming to the role that
14 digoxin may have in certain of the deaths?

15 A. Well, I suppose that the
16 level was done - we know that the level was done
17 and I think we can't make any assumptions as to why
18 it was done. I don't know, other people were
19 becoming sensitive on the ward. I think everybody -
20 word travels around the Hospital quickly, this sort
21 of thing, and I suppose that other people were
22 beginning to wonder about this and this may be the
23 reason that digoxin was ordered. I cannot remember
24 knowing who actually drew the sample or why or who
25 ordered the sample to be drawn.

Q. Well, there was I take it



EE-2-10

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some major concern on the morning of March the
21st about the death of Allana Miller and the role
if any that digoxin played in it?

A. Well, this was not the
concern of mine because I was the Ward Chief and I
felt that there was medical evidence to explain her
death and it wasn't until the digoxin level was
revealed to me later in the day that I realized
that this was also another example of something that
had to be looked into in detail by the coroner.



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Q. Now to be fair you are not suggesting, are you, that the death of Allana Miller insofar as it may have involved digoxin did not become of concern to you until the evening of the 21st?

A. No, that was not a concern to me. Now you must --

Q. It was not a concern? You are saying it was not a concern?

A. It was not a concern. She died. She was a very ill child as you know, and you have had evidence of what she had and so on, and she has pulmonary vascular disease, and people with pulmonary vascular disease die suddenly, and I must have made the decision that this was a natural death due to her disease, and we were to await the post mortem results.

Q. You called Dr. Rowe to advise him of her death?

A. No, but I phoned him specifically because as I say I felt this was a natural death. It wasn't unusual, and I just told him later in the day as we walked over to the meeting with the Coroners that she had actually died.

Q. And you had a discussion with him about that?



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A. I don't remember what we discussed, but I presume at that time that I didn't think of anything out of the way or I naturally would have talked to the coroners and ---

Q. Do you remember your discussion with Dr. Rowe specifically?

A. No, I don't. I don't remember it. That is a long time ago and I don't remember what we discussed except that I think I notified him that she had died.

Q. Was it your impression that he shared the same view that you did about the death at the time you talked to him?

A. I think that would be fair to say, but I don't remember the conversation specifically so I can't be sure.

Q. All right. With respect to the death of Allana Miller, Dr. Rowe had indicated, and I am referring to Volume 23, page 4249 the following, and this is prior to the meeting with the coroner on Saturday afternoon.

A. Yes.

Q. So it would be after you and he had discussed the matter.

A. Yes.



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Q.

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"I think he indicated that going into

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that meeting, Saturday afternoon, you

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were at the least very concerned about

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the Miller situation, at that time you

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didn't know what the levels were?

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A. I think that is true."

9

And then at page 4251:

10

"Q. Certainly, I suppose next to

Pacsai and Estrella, it -"

11

(that is the Miller death)?

12

A. Yes.

13

Q.

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" - had to be a matter that was near

15

the top of the concerns that you had

16

going into that meeting?

17

A. Oh, yes, absolutely."

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Now if Dr. Rowe has that recollection

of the significance of the Miller death to him at

19

that time, do you agree with that?

20

THE COMMISSIONER: Just a moment,

21

please. Yes?

22

MR. ROLAND: Mr. Commissioner, I think

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we went through this the last time when Mr. Hunt

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questioned, the same exercise with Dr. Freedom, and

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2 on re-cross-examination by Mr. Scott, and I will
3 find it, but the Doctor explained that he had the
4 timing confused on that and he straightened it out,
5 and my friend knows that and he went through that
6 once before and now he is coming back to it again.

7 MR. HUNT: No, I don't accept what my
8 friend says.

9 We went through this before all right,
10 but the answer that my friend thinks Dr. Rowe gave is
11 not there, and if he can find it I will be happy to
12 rephrase that question.

13 THE COMMISSIONER: What do you think
14 about the timing?

15 MR. HUNT: Well, I can stop now if
16 you wish.

17 THE COMMISSIONER: No, you don't have
18 to stop, but you are going to be a while? Is that
19 it?

20 MR. HUNT: I think I could probably
21 finish up within another five or ten minutes at the
22 most.

23 MR. STRATHY: Could we have a vote on
24 that, Mr. Commissioner?

25 THE COMMISSIONER: I take it - well,
you are going to be spared no matter what because I



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(Hunt)

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won't call on anyone else, if that is what you are
concerned about.

Have you any problems about coming
back tomorrow?

THE WITNESS: Oh, no, I will be here.

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FF2-1

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THE COMMISSIONER: Well, I think we will rise now. If there were any remote chance to get rid of you today ...

MR. TOBIAS: Mr. Commissioner?

THE COMMISSIONER: Yes.

MR. TOBIAS: Perhaps it might be a helpful exercise just to canvass the remaining counsel so that we can establish the order that they are going to cross-examine in, and more importantly, get some estimates regarding time.

THE COMMISSIONER: Well, the order they are going to cross-examine in is in the regular order except that Mr. Shinehoft has already had his opportunity.

MR. TOBIAS: All right. Well, I imagine you will be starting in with Mr. Strathy followed by Mr. Sopinka.

THE COMMISSIONER: The other way around, I think.

MR. TOBIAS: All right, Mr. Sopinka followed by Mr. Strathy.

THE COMMISSIONER: That is right.

MR. TOBIAS: Is there any way we could get some time estimates?

THE COMMISSIONER: The only one we



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can get it from is Mr. Strathy. He might give us
some indication but he has to prepare himself so he
doesn't know yet.

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Do you want to try?

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MR. STRATHY: I would be surprised if
I was longer than an hour.

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THE COMMISSIONER: Yes.

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MR. TOBIAS: Yes. And Miss Kitley
I understand intends to cross-examine. Is that correct?

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MS. KITELY: I expect so; 15 or 20
minutes.

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MR. YOUNG: Mr. Percival will be in
the neighbourhood of about 30 minutes.

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THE COMMISSIONER: Yes. I have
warned Mr. Lamek and Miss Cronk that there is a good
chance the cross-examination will be finished
tomorrow morning and they are at the moment I think
scouring the halls of The Sick Children's Hospital
to see if they can get somebody else in.

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MR. TOBIAS: Mr. Commissioner, it is
my unofficial straw poll that there is still eight
counsel not including Mr. Hunt to finish up tomorrow
morning.

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THE COMMISSIONER: Well, it may be
difficult, it might be difficult, but I don't want to

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discourage it. We have been doing well.

MR. TOBIAS: Yes.

THE COMMISSIONER: And who knows, you may well find when it comes to your turn that all your good questions have been asked and you won't have to ask them.

MR. TOBIAS: That is a distinct possibility.

THE COMMISSIONER: Yes. Well, all right, with those words then, 10 o'clock tomorrow morning.

--- Whereupon the Hearing was adjourned until Wednesday, September the 14th, 1983, at 10:00 a.m.

